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## LECTURES, MONOGRAPHS, AND CASES.

*The Domain of Medical Police.* (Abstract of a Paper read before the New York Sanitary Association, February 6, 1862.) By LOUIS ELSBERG, M.A., M.D.

[NOTE.—The following sketch accomplished, it is believed, some little good by presenting at one view the extensive, and in this country hitherto but little cultivated, field of Medical Police. It is published with the hope of extending its usefulness *pro bono publico*. It must be looked upon but as a "Bird's-Eye View" of a Domain to the extent or details of which the writer has contributed scarce anything. In some introductory remarks it was stated: "The general survey—though hastily and imperfectly performed, without many claims to originality or profundity, and prepared under the pressure of other duties—is intended to furnish *systematic headings* for the various questions that arise; *shelves*, as it were, upon which you might arrange your knowledge in systematic order; and if the attempt prove a failure, I shall find consolation in view of the vastness and intricacy of the inquiry. Exhausting nothing, I intend to touch upon many things. I shall often but indicate the various points for consideration without 'passing judgment,' and again, state conclusions without giving the course of reasoning by which they have been arrived at, or the argu-

ments by which they might be sustained. I intend, briefly, to run over the volume as it were before us, *not* in its separate pages, but by its preface and table of contents.”]

Medical Police—*politia medica*—is an institution necessary to the security and perpetuity of society; a necessity resulting, indeed, from the very constitution of society. It is an integral part of State polity. To obtain a just idea of its nature, objects and limitations, it is requisite to seek primarily clear notions on police in general.

The word *police* is derived from the Greek *πολιτεια*, which ANSON defines: the relation in which a citizen stands to a State; the condition and right of a citizen; and again: the life and business of a statesman; hence, government and administration. It is employed to designate those regulations and institutions of a State, a city, or a country district, which have for their object, to secure the maintenance of its internal peace, good order, safety, comfort, cleanliness and health. It is also applied to the body of men or the “civil force” by which the police regulations are executed and enforced.\* In contradistinction to courts of law and justice, it has been said by Schürmeyer,† that the latter are concerned only with illegal human actions, while police is concerned principally with interference with the rights of citizens from force of external circumstances and with enforcement of the laws. A paragraph in the Act of the Legislature of our State, passed April 10, 1860, in reference to the Metropolitan Police, (though it contains some points irrelevant to our purpose,) defines the duties of Police so fully that I quote it entire. “It is hereby made the duty of the Metropolitan police force, at all times of the day and night within the said Metropolitan police district, and the members thereof are accordingly hereby thereunto empowered, to especially preserve the public peace, prevent crime, detect and arrest offenders, suppress riots and insurrections, protect the rights of persons and of property, guard the public health, preserve order at every primary and public election, remove nuisances existing in public streets, roads, places and by-ways, repress and restrain disorderly houses and houses of ill-fame; to arrest all street-beggars and mendicants; to provide a proper police attendance at every fire, in order that thereby the firemen, fire-engines (persons) and property exposed may be suitably assisted and protected; assist, advise and protect emigrants, strangers and travelers

\* See Blackstone, Bouvier, Webster, Worcester; also, David Booth's Analytical Dictionary of the English Language, London, 1836.

† Handbuch der Medizinischen Policei, Erlangen, 1856.

in public streets, or at steamboat and ship landings, and railway stations; enforce every law relating to the suppression and punishment of crime, or to the observance of Sunday, or regarding pawn-brokers or mock auctions, or emigrations or elections, or gambling, or intemperance, or lotteries, or lottery policies, or vagrants, or disorderly persons, or the public health, or any ordinance or resolution of common councils, or town or village authorities within the said district, applicable to police, health, or criminal procedure."\*

It is interesting to know that precisely the same language is used in the Act of the "Congress of the United States," passed August 6, 1861, "to create a Metropolitan Police District of Columbia, and to establish a police therefor."†

According to Mohl,‡ Police embraces all the various measures and institutions which, by the exercise of the general powers of the community, aim to prevent or remove those external influences that interfere with lawful actions, enjoyments, and possessions of individuals, which the individual cannot wholly or satisfactorily prevent or remove, without a violation of the rights of others or a disturbance of the peace of the community.

From this we may paraphrase the definition: Police is that exercise of the general supreme power of a community which tends to make inoperative the causes interfering with the rights of the individual, and which he cannot remove without a violation of the rights of others, or of the peace of the community. The science of Police is the systematically arranged knowledge of the various means used for this purpose, and of the principles on which they are instituted and the purpose effected; and indicates what authorities must exist, how they should be organized, and what programme of business they should follow.

In the discharge of its duties, the police occasionally encounters conflicting interests; and as the objection has often been made to the institution of *medical* police, that it would interfere with personal rights, the subject of compulsion may perhaps at this stage of our inquiry profitably engage our passing attention.

The right and duty of the police to employ force when necessary

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\* Laws of New York, 1860, ch. 259, § 29.

† Statutes at large and Treaties of the United States of America, 37th Congress, 1861, chap. 62, section 5th.

‡ Die Polizeiwissenschaft nach den Grundsätzen des Rechtsstaates, Tübingen, 1844.

can, in general, not be doubted. The only question that can arise is: Can the benefits of a particular institution be fully realized by one individual, whether or not another avail himself thereof, or are its beneficial results lost to the entire public, unless each individual in the community conform to it? If the former be the case, compulsion is both wrong and inexpedient, for we may admit no one can well be compelled to accept benefits designed only for his own good, or to protect only his own person or property. Neither can it be left, however, to the will or caprice of an individual, or even, of many individuals, whether or not the remainder of the community shall enjoy certain valuable and necessary protection or not; and it is a principle, universally admitted by jurists and publicists, I believe, that the will, necessities, or rights of individuals can never stand in the way of the rights, necessities, or will of the community.

The limits of compulsion depend principally upon the resistance; and the means of compulsion upon the nature and importance of the protective institution to be established. The more important and indispensable to the community the object to be attained is, the greater may be the force, amounting, according to circumstances, to loss of privileges, property, liberty, and even life; and all these elementary principles are justly applicable to regulations for the protection of the public health.

As far as police is concerned with the physical condition (and especially the health) of the community, it will be seen on a moment's consideration that, in order to attain its object, it requires the possession of medico-physical knowledge; and in view of our previous remarks on police in general, we may now define "Medical Police" to be that science which teaches the application of every branch of medical knowledge—or more widely still, of physical knowledge—to the purposes of police.

Medicine bears to police, as medical police, a somewhat similar relation as it bears to law as medical jurisprudence. And the difference, too, between the latter or legal medicine, *medicina forensis*, and *politia medica* is exactly that between law and police. Both, medical police and medical jurisprudence, are embraced in the term State medicine, *medicina publica* or *medicina politico-forensis*.

The domain of medical police admits of a division into three departments: (1.) Preservation of Public Health; (2.) Removal of Disease; (3.) Administration of Medical Affairs. These three divisions link, at many points, however, closely into each other. The first embraces not only the maintenance, but also the promotion or improve-



ment of the existing sanitary condition of the community, primarily therefore the exclusion of the causes of disease; the second includes the re-establishment of the perturbed state of public health, specially therefore the cure of diseases; while the third embraces the totality of the various laws, regulations, and institutions referring to medicine.

A system of administrative medicine can be established for a community only after long experience of the proper working of a medical police, and though required by us in order to define the sphere of action of the public health officers, I can at this moment only say, on this head, that the provisions of the Metropolitan Health Bill, emanating from this Association, and now before our Legislature, form, in my estimation, the foundation and outlines of a system which, properly followed up by officials and the medical profession, and extended to medical jurisprudence, gives a reasonable hope that the entire regulation of medical affairs among us will gradually but surely become what it should be.

As to the second division, *i. e.*, the Cure of Diseases, it is plainly the duty of the State, *i. e.* of medical police, to take care that the conditions be not wanting requisite for the restoration of public health. It must ensure, therefore, the existence of the necessary means of cure for the *optional* employment of the individuals, referring both to authorized persons and to drugs, pure and in good order. Besides ensuring this supply for optional use, the community must, in all cases where either from poverty or from other personal and local circumstances the sick individual is incapable of providing himself with the remedial aid he needs, assume to do this also for him. Furthermore is it its duty in epidemics, to publish, as far as expedient and practicable, for the instruction and benefit of the public, any dietetic or other rules of regimen which may be instrumental in alleviating the disease.

The particulars of this division of medical police do not, it is true, fall within the scope of this Association, but, for the sake of completeness, I crave your attention to a brief enumeration:

(1.) To have a competent medical *personnel*, the community requires institutions for its education, and it is the duty of the State to charter, and through the medical police surveil these with solicitous care. It should regulate the admission of students, require a standard of preliminary knowledge, prescribe and facilitate their course of study, and test their competency before licensing to practice. In licensing, specialties, as that of midwives, dentists, oculists, etc., must not be overlooked. The question of the expediency of establishing a tariff

of fees, either for private or public services, or both, reclaimable by law, might arise; and certainly that of transgression of license and suppression of quackery must claim attention.

Instruction of nurses or other attendants and assistants, might also become a subject for consideration.

(2.) The care for proper remedial *matériel* involves licensing of apothecaries, regulation of the sale of poisonous and secret or patent remedies, and inspection of drugs, medicines, and perhaps also, of surgical instruments. The question of establishing here, too, a tariff of prices, with limitations if necessary, might also be considered.

(3.) During the prevalence of an epidemic it would be the duty of medical police to make any extra provision for the treatment of the sick, necessitated by the circumstances.

(4.) Whenever a sick individual is supplied with the aid he requires without its assistance, medical police must not interfere, but it is its duty to procure proper medical and other attendance and provisions when, from any cause whatever, the sick cannot otherwise be provided for.

[For the care of these sick, the following means may be used: (*a.*) General public hospitals; (*b.*) Special hospitals or institutions for the relief of particular maladies, as asylums for the insane, the imbecile, the blind, the deaf and dumb, invalid houses or hospitals for incurables, women's hospitals, children's hospitals, orthopedic institutions, etc; (*c.*) Dispensaries, or places to which the needy sick can go for advice and medicines; and (*d.*) Dispensary out-door departments, with their district physicians, or physicians for the poor, specially employed by the medical police authorities to visit the sick at their homes.

Either of these means may be partly or wholly supplied by private charity, but medical police must, whenever necessary, encourage or assist their establishment, or else establish them itself; and in all cases it must exercise over them a certain supervision.]

(5.) It is the duty of medical police to prevent the interment of persons only apparently dead. (That persons *have* been buried while really alive, there can be no doubt.) Certificates from physicians, special inspection and investigation before granting permission for burial, and the keeping of all bodies for a certain length of time in dead-houses, before interring them, are among the precautions to be considered. (The duties of coroners are closely related to this subject.)

(6.) Provisions for rescue in apparent death, and from accidents, fall also within the sphere of duty of medical police. Wherever

deemed necessary, therefore, it should provide both means and instruction as to the popular and immediate aid to be given to the drowned, frozen, strangled and suffocated; to persons fallen from heights, or bitten by suspected dogs, cats, &c., or poisoned in any way, or scalded or burnt; to the asphyxiated, from intoxication, foreign bodies in the air-passages, etc., etc.

We now come to the consideration of what I made the first division, i. e., "The Preservation of Public Health," which forms, *PAR EXCELLENCE*, the domain of medical, or, as it is (in this connection) also called, *Sanitary Police*.

The most important and fertile source of *effective public hygiene* is thorough, minute, and extensive *SCIENTIFIC OBSERVATION* of the *sanitary condition* of the community, and the *causes* influencing it. That such observations, or in other words, *skilled sanitary inspections*, can be made only by persons of a medical education—that private physicians cannot make them extensively and continuedly enough for the purpose, and that they require specially appointed *health officers*, surely is too evident to every intelligent person to require much elucidation.

Let any one but *consider* (even if ever so superficially) what duties such inspection involves. It must embrace the whole manner—the *tout-ensemble*—of a man's life and his relation to all natural and artificial agencies affecting health. It must yield scientific *STATISTICAL, CHEMICAL, MICROSCOPICAL* and *TECHNOLOGICAL* results for sanitary purposes. It requires a health officer to prepare, and keep corrected, a **SANITARY MAP**, (of the district allotted to his inspection,) showing the grade, width and condition of the streets, the sewers, the soil; the vacant lots and the buildings, and a **SANITARY REGISTER**, showing the number and condition of the inhabitants; not only the deaths, but also the diseases occurring in each locality, with meteorological, barometric and thermometric records, as well as occasional chemical and microscopical analyses of the air and the drinking water of a particular locality, of particular articles of food, etc. I do not mean to say that every *medical man* is fit for such inspection, but that none except a person of a *medical education* IS! A health officer, besides making the ordinary medical studies, must pay *particular attention* to the causation, eradication and prevention of disease. And here, allow me for a moment to enter into an explanation of the term "disease." Although it is convenient in description and discussion to speak of disease as an entity, all educated physicians (if not, indeed, all educated persons,) are well aware that what is so designated, has

really *no* personal or ontological character, but is only a condition, and may be defined "a *perversion* either of the functions or of the structure of the body, or of any of its parts." It is, in other words, "a deviation from the normal physiological state or action of the organism under the disturbing influences of morbid causes." In this respect, the positive progress of physical science enables us to stand to-day on altogether a different footing from that of our forefathers. "All pathology is but the physiology of organic perturbations."\* The organism never becomes diseased by itself, nor does it ever alone become a cause of disease. Being the source of all manifestations of life, it is at the same time, also, the means of preservation of these manifestations; only that in its material constitution lies the general possibility of becoming diseased. But the realization of this possibility requires the addition of another factor, that may be called morbidic—or literally, sick-making—Cause!

The morbidic cause must, however, not be regarded a unit. In all cases there are really two different factors, only the co-action of which makes up a cause: producing disease as such—i. e., that calls forth the phenomena giving rise to the term. But in many cases, the organism is forced, by original or acquired constitution, to act as second factor when one factor of a morbidic cause has gone into operation. These factors are called, respectively, remote or predisposary, and direct or exciting cause. (One alone has also been called the cause, and the other the totality of circumstances under which it can act.)

Every man, even the healthiest, as we find him, has natural predispositions to disease; every one will therefore, under favoring circumstances, become sick. Predispositions as well as morbidic causes are very numerous and diverse. They are all of interest and importance to the practicing physician, but medical police is specially concerned with such of them only as transcend the ability of the individual to exclude. As to others than such, its province can only extend, according to circumstances, to calling attention, by appropriate instruction and warning, to the danger and the means of avoiding it; as to the former, however, it has the right and the duty to enforce regulations for their exclusion.

The branch of medicine specially concerned with the *annihilation of the causes of disease* has, during the last few years, found many

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\* Memoranda Medica, or Note-Book of Medical Principles. By Henry Hartshorne, A.M., M.D. Philadelphia, 1860.

ardent investigators! A new name: *Nosophthory*—literally, the science of eradicating disease—has been given to it, and it bids fair to attain the rank of honor among the medical sciences!

The SURVEY of this domain of Sanitary Police (i. e., *the exclusion of morbid causes*,) may, for our present purpose, be divided into three sections, viz.: I. Total Extinction of Causes of Disease. II. Protective Measures against Contagious Diseases. III. Protective Measures against Miasmatic Diseases.

I The total eradication of certain diseases may be considered under the two sub-heads: A. Prevention of hereditary diseases; B. Removal of injurious external influences.

A. Hereditary diseases communicated from progenitors to children, or these going free, to children's children, "even to the third and fourth generation," are generally of such a nature that the healing art can do against them nothing, or but little. Medical police must look to the protection of a future member of the community from such serious complaints, the more as he is entirely innocent of their production, is not able in any way to anticipate, avoid, or get rid of them, and as they may—by burdening society with helpless sufferers from those scourges of the human race that ineffaceably stamp upon their victims deformity and disease—become highly prejudicial to the public weal. Among the means to meet this evil, we must first speak of restriction of such marriages as, in all human probability—for there is here no perfect certainty—will lead to the dire result.

The late Prof. Reese, in a Report on Infant Mortality to the American Medical Association, said:

The *physical health* of both parties in every marriage contract should be regarded by each as equally important with the *moral* habits. And as marriage is a *civil contract*, the fruits of which vastly concern the public welfare, (bearing as they do upon the present and future generation,) it is the duty of the State, in every civilized and Christian country, to surround marriage with all the sanctions of law, and to protect the unborn fruits of such alliances from premature destruction by statutory enactments! These should be such as an enlightened science and philanthropy suggest, and should be encouraged and enforced by the united power of religion and law.

He then goes on to lay down: "No marriage should be permitted between parties until the physical health of both has been subjected to professional scrutiny. And such alliances should be *prohibited by*

law, to those of either sex, who are the subjects of those diseases which are known to be hereditary or transmissible to offspring, or such as are fatal to infantile existence. *Celibacy should be required by statute* of all consumptive, scrofulous, scorbutic, gouty, insane, intemperate, and especially *syphilitic* individuals, of either sex; and this, for grave reasons of State, which concern the public weal. Nor will any course, *short* of such legal prohibition of marriage, adequately correct the evil.\*

Now, this is strong and positive language, just such as the talented Professor was wont to use, but it admits, in my estimation, of grave doubts, whether marriage can be wholly considered a civil contract which the State has under absolute control, and the unconditional right to prohibit. Is it not rather also to be regarded a domestic institution, which the State has only the conditional right to regulate? Prohibition may conflict with the most important, most sacred, private interests and rights! Nevertheless, I too contend that there *are* cases in which all these must yield to the supreme right of society. (But those who labor to establish among us a thorough sanitary police—and this place is as good as any to lay down the general principle which I wish every friend of sanitary reform would appreciate and act on—should not go too far in their proposals and demands, lest, indeed, as Vetter says: "Embracing on the one hand many objects of ordinary police, penetrating on the other, into the recesses of domestic life, choosing the bride for the husband, calling upon the able-bodied for procreation to marry, and forbidding marriage to the weaker, watching the arrangement and the affairs of the household, the bringing up of our children, and the very morsel that we swallow—medical police would become a greater plague and nuisance than any it could remove, and instead of promoting the health, would only interfere with the best interests of the community.")

Marriages not capable of carrying out their object, and positively injurious to the general good, society must prohibit. Marriages not in this category, yet involving possible injurious consequences to the offspring, may be endeavored to be restrained by suitable instruction and warning, leaving it optional to the parties, according to the circumstances, to enter them or not. From this stand-point the possible prohibition of the following marriages seems indicated: (1.) Marriages before the age of sexual maturity, the precise age to be fixed by law. (2.) Marriages between persons affected with diseases that

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\* Transactions of the American Medical Association, Philadelphia, 1857.



will *certainly*, or with *very great probability*, be communicated to their offspring, disabling them positively, or that interfere with their mental self-consciousness and responsibility. In this class of diseases insanity and the venereal may be included. (When entirely cured, which must, however, be positively ascertained, there can of course be no reason for prohibiting the marriage any longer.) (3.) Incestuous marriages, in regard to which laws should accurately define the *various degrees of relationship* within which marriage is prohibited.

The next source of hereditary diseases is "Illegitimate Procreation." This opens for discussion the extensive chapters of prostitution, destitution or pauperism, and obscenity or voluntary offences against decency, in which one of the first questions that must be met is: Whether prostitution should by the law be ignored, or sought out and punished, or licensed and regulated. My own conviction is decidedly against both the expediency and the morality of a State's *licensing* such vice, but I concur in the suggestion of my friend, Dr. Griscom, that all prostitutes should be subjected to examination, to determine whether they are affected with venereal disease, and if found diseased, should be sent to the Island to be cured. The whole subject, however, requires grave weighing in all its relations.\*

B. In the "*removal of injurious external influences*," Sanitary Police finds its most EXTENSIVE field.

Commencing with the "means for insuring undisturbed *fatal* existence, laws and ordinances concerning pregnant women, abortion, etc., should be carefully made and stringently carried out. A *dissertation* on "the *sources* of abnormal conditions of the *fœtus*" formed the inaugural fruits of my medical studies; and I would refer here to my Thesis presented for graduation to the Jefferson Medical College of Philadelphia, for a *résumé* of a subject that should be thoroughly investigated from the stand-point of the medical policist.

(2.) "*Removal of injurious influences at the birth of children*" comes next in order. In this connection, I must add, that *Lying-in-Asylums* for expectant mothers, irrespective of character and civil condition, (*i. e.*, whether married or not,) are urgently called for; but the beneficial working of *Regular Foundling Hospitals*, that have

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\* A discussion of this subject led to the adoption of a Resolution to "appoint a Committee to present the subject of the limitation of Venereal Diseases for discussion before the Association." Drs. Griscom and Harris were, with the writer, appointed such Committee, whose report will probably be presented to the readers of the MONTHLY in a future number.



lately been so much advocated in our midst, is not so well established, and requires grave consideration.

(3.) The proper "Physical Education," as well as the "Mental," of children, especially of orphans and of poor children, (who have no one else to see to it,) should be carefully *superintended* by medical police.

(4.) Next we must take up the "subject of sound, wholesome, and unadulterated articles of FOOD and DRINK." For the detection of purity or the particular sophistication, some knowledge of, and manipulative dexterity in, analytical chemistry and microscopy on the part of the Health Warden, is imperatively demanded. Barely to enumerate the articles that he must examine chemically and microscopically, we may name

Cereals and flour, bread, potatoes, vegetables, green and dried fruits, pickles and preserves, meats, sausages, fish, butter, cheese, sugar, confectionery, water for drinking and culinary purposes, (including the important subject of aqueducts,) milk, cream, coffee, tea, cocoa and chocolate, vinegar, soda-water, beer, ale and porter, wine, brandy, gin, and other alcoholic liquors, oils, salt, mustard, pepper, and other condiments, etc.

(5.) Protection against influences prejudicial to health, arising from the use of certain household utensils, colored paper, and copper and leaden vessels, &c. (It is of course understood that *absolute prohibition here*—except perhaps to some extent in public eating-houses, and the like—is out of the question; still, much can be done to prevent their injurious consequences, by a proper Board of Health, and competent Health Wardens.)

(6.) Surveillance of various articles of manufacture, as toys, toilet articles, snuff, etc.

(7.) "Healthy domicils and surveillance of domiciliary arrangements." This is concerned with the condition of the *soil*, and position of the particular lot on which the dwelling is erected, the architecture and the building materials, the arrangements for ventilation, sewerage and drainage, the water-closets and cesspools, the introduction and diffusion of heat, light, &c., &c., with *cleanliness* in the house and out of it as its first law. Even the bare enumeration of all the subdivisions under this head would extend this essay beyond its necessary limits. This care, while *most* urgently demanded for tenement houses, with their disease-producing cellar and closet residences of whole families, and crooked and narrow streets, is applicable in many respects

to houses of all classes; for instance, as to injurious wall-papers, too early moving into new houses, etc.

(8.) Clean streets, docks, yards, and public places; removal of ashes, offal, garbage, etc.; removal of all nuisances. Public parks and promenades, public baths, public necessities, hydrants and water-closets.

(9.) The sanitary condition of public buildings, schools, churches, courts, prisons, (including, of course, the food, clothing and occupation of prisoners,) and other public institutions.

(10.) Removal of injurious effects of various trades, manufactures, arts and occupations. This refers both to the injurious effects on the health of the individuals engaged in any particular business, and to its noxious influence on the health of the community in which it is carried on. Here, too, a wide field is open for public hygiene and sanitary reform. Its cultivation discloses the REMOTE CAUSES of many diseases, and refers them to evils in our civil state, many of which might *easily* be removed. I pass on without specifying the various branches of human industry, and without alluding to military, navy, and merchant ship medical police, which all belong to this division. I must, however, say, that several occupations generally supposed to be injurious, are really, or can be made, entirely harmless with proper hygienic regulations.

(11.) "Prevention of injurious emanations to the community from its burial-grounds." This necessitates regulations for the transportation, and place, and manner of interment of the dead.

(12.) Precautions against the indiscriminate sale of poisons.

(13.) Precautions against dangerous animals, to prevent hydrophobia, &c.

Precautionary measures against suicide, drunkenness, and injuries inflicted by insane persons, &c.

Precautionary measures against injuries from falling down of objects, against falling into the water, or into pits, excavations in the street, against injuries at fires, &c., and prohibition of certain imprudent acts dangerous to public health or life; and

(14.) Precautionary measures against explosions, against dangers in public conveyances, on cars and steamboats, and on ice.

Having thus rapidly run over our first section of the Domain of Sanitary Police, (which embraced the total *eradication* of certain causes of disease,) we may cast a few glances towards the two remaining sections: namely, the institution of Protective Measures

against *contagious* and *miasmatic* diseases. We shall look at these very cursorily.

*Endemic* diseases depend for their production on *LOCAL* conditions, as geographical position, soil, climate, manner of life, drinking water, food, supply of air and light, &c.

*Epidemics* depend, generally, on particular conditions and foreign ingredients in the *atmosphere*.

Infectious diseases (including under this name, for the sake of convenience, *all communicable* abnormal conditions, therefore both contagious and miasmatic diseases,) depend: (1.) On the communication to the organism of some material cause of a disease, (*materies infectionis*;) and (2.) On the *susceptibility* of the organism—i. e., on its capability of becoming affected thereby so that a disease *sui generis* is the product of the infection; or communication. Without the infection on the one hand, and the susceptibility on the other, there can be no infectious disease. The best means, therefore, for protecting mankind from all *existing infectious diseases* is that which *destroys* the *susceptibility* to become affected thereby, if that can be accomplished *without* injury to health. Now, while there are indications, and reasonable grounds for the hope that the unceasing progress of the physical sciences will eventually—aye, perchance very soon, [for even at this moment but a few links are wanting in the chain of evidence,]—satisfactorily solve this problem, *we already do possess* that means in relation to one of the most *terrible* afflictions of humanity—SMALL-POX—which formerly attacked one-half of the whole *human race*—and almost regularly either *killed* or *for life disfigured* its victims. That the protective means at our command—vaccination—is *imperatively required* by society, seems superfluous to state—and that it is the duty of medical police to use *coercion, if need be*, to APPLY IT, is (after my remarks on compulsion in the beginning of this paper) self-evident.

On the question: How *should* and *can* compulsory vaccination be accomplished? I hope to have at a future time the privilege of addressing you.

As to *miasmatic diseases*, it is urged that QUININE, taken during exposure to malarial influences, possesses the power of preventing them.

The endemic, *Cholera infantum*, undoubtedly has, as its causation, the three elements: Intense summer HEAT, the *atmosphere* of large CITIES, and the peculiar susceptibility of *infants*. (Of these, the

second is, of course, most under control, by removal to the pure air of the open country.)

Again, the mode of causation of *typhus fever* appears to be placed beyond a doubt! It seems to depend, in the first place, upon the one essential cause, *Ochlesis*, or CROWD-POISON! Yet when shall we hear no more of Jail fever, camp fever, ship fever, and by whatever other synonyms and "aliases" typhus ravages humanity! "Wherever the excreta of human beings from their lungs and skins, as well as bowels and kidneys, accumulate in an unrenewed atmosphere for a considerable period, TYPHUS WILL BE PRODUCED. Then it becomes infectious: both miasmatic and contagious; i. e., not only do certain places become tainted with it, so that all persons abiding there, are liable to it, but a single patient with typhus, taken to a new neighborhood, may generate the disease in other persons. The excretory zymotic agent, which ordinarily requires numerous bodies to afford it in typhus-breeding quantity, is so concentrated and dynamized in the body of the patient, sick with the fever, as to have in it the poisoning power of a whole crowd! Thus, in typhus, the morbid poison is originated by the alteration and accumulation of matters naturally produced in the body. It is not so with the contagion of small-pox—the origin of which is not thus controllable by circumstances, in the absence of its specific cause, nor is it so with the localized infection of yellow fever, or the migratory poison-cause of cholera." What a field there is here for a proper medical police—what results can crown its labors—is obvious! A similar remark, almost, applies to endemic Typhoid fever, although its causation is involved, as yet, in far greater obscurity. That it can be—and frequently is—produced by putrid exhalations of some kind, and in many instances by emanations arising from sewers, there can, however, be no doubt. It was of this disease that Prince Albert of England died!

The fertile and abused subject of *Quarantine* I must pass by. Good in its place, how bad is it out of place!

In the protection of localities, it is believed that the most desirable quarantine is a dirt quarantine. "Annihilate or exclude dirt, i. e., putrefiable animal and vegetable detritus, and no migratory or malignant morbid poison can sustain its existence even if its cause be imported to the spot!" Thus it is maintained that, by sanitary reform, ALL MALIGNANT EPIDEMICS ARE PREVENTABLE; and it is interesting to know that this has been proved, even as regards plague, once the most destructive of all pestilences, and looked upon as the very type of contagion! It has now, so to speak, died out in those cities of the East

to which it was formerly a *frequent visitant*, if not an endemic Long ago it was finally excluded from all the parts of *Western Europe*, not by quarantine, but by improved *local* SANITARY ARRANGEMENTS! Its fountain-head, the great Oriental capital, *Cairo*, before the time of Mehemed Ali, many times lost tens of thousands of inhabitants by its visitations. From here it spread, devastating over Egypt and the world! The viceroy named, and his son, Ibrahim Pasha, (though unaware of the stupendously beneficial results of the undertaking,) removed the hills between Boulâq and the mouth of the Nile, and transformed an immense swamp in the heart of the city, and the *receptacle* of all its filth, into a park, (or olive and fruit-bearing pleasure garden—the “*Esbekiah*.”) Other local sanitary arrangements were enforced, and now CAIRO (*and with it, all humanity*) IS FREE FROM PLAGUE!\*

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In conclusion, let me repeat five words, which we can never too often reiterate in the ears of the public and of our Legislature—five words of *Truth!* and *Hope!!* and *Charity!!!*

“*All malignant epidemics are preventable.*” “By attention to the laws of public and domestic hygiene, all malignant epidemics are preventable.” This truth must become the gospel text of the Evangelists of Sanitary Reform! Promulgated through all the avenues to the public mind, every civilized community must appreciate its import, and would soon, by appropriate sanitary measures, realize some of its promises!

“All malignant epidemics are preventable,” AND CAN BE PREVENTED by attention to the laws of hygiene, which it is the object of *this Association* to have systematized and acted upon in the Metropolitan Health District! SHALL *they ever be prevented among us?*

Well did the Sanitary Committee of our Board of Health for 1849, say: “To no other work should the authorities address themselves more earnestly than the establishment of a *thoroughly organized medical police.*” \* \* \* The *advantages* of such a measure would be *incalculable.*”

Well did the State Senate Select Committee, in 1859, say: “Preventive Medicine, rising rapidly to the perfection of a science, is capable of exerting a vast influence over the welfare, physical and moral, of the human race!”

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\* See the subject of *Etiology*, Hartshorne's Memoranda Medica, Philadelphia, 1860.

Well did Dr. Griscom, *before this Association*, but a few months ago, quote Mr. Simon's words: "*Preventive Medicine* will effect INFINITELY MORE for mankind than all the DRUGS which have *yet been discovered*, and all the *curative skill* which has *ever* been exerted for the *alleviation of disease*."

Mr. President, and Members of the New York Sanitary Association: Fellow-Citizens of our beloved Empire City: Let us hope that the happy hour is near at hand when the Metropolis of the New World can partake of the fruits of a Medical Police!

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*On Cainca.* By JOHN C. PETERS, M.D.

(Continued from February No., p. 101.)

CASE 11.—A robust man, aged 42, was attacked with dropsy of the legs, without known cause; he took fifty-six grains of the extract in two-grain pills in the course of one morning, in place of four days, as had been directed; he suffered for forty-eight hours with super-purgation, followed by recovery, so that he was able to attend to his business at the end of seventeen days.

CASE 12.—A robust woman, aged 45, had suffered for three months with frequent and severe attacks of palpitation, coincident with great scantiness of the menses, and general anasarca; she had occasional attacks of fever at night, followed by non-relieving perspirations; she was habitually constipated, with constant scantiness of urine, which varied from clear to turbid in its appearance. Purgatives and blood-letting had not relieved her; she then took *cort. rad. cainc.*, one drachm in two doses, in one-half glass of white wine; and on the following day, one drachm at one dose, without immediate perceptible effect; but on the following night such profuse diuresis occurred, that the swelling of her face subsided almost entirely. On the fourth day she took two drachms infused in water, in two doses, followed by two stools, and profuse discharges of clear urine, cessation of thirst, and considerable decrease of the swelling of the legs; but the palpitations still continued unrelieved. The medicine was discontinued, and on the twenty-first day all her previous troubles had returned; the *cainca* was again resumed, followed by profuse diuresis and diminution of the dropsy; but the patient refused to continue it, until rheumatic pains sat in, followed by increased swelling of the legs, pains in the kidneys, and profuse leucorrhœa. The powdered *cainca* was now

given, two drachms at one dose, followed by two stools and discharge of urine in perfect floods; on the following day menstruation sat in freely and regularly, and in the course of a few days the dropsy had all disappeared, and she had no subsequent relapse.

CASE 13.—A man who had suffered for three months with disease of the heart and general dropsy, took one-half drachm doses of cainea, night and morning, for three days; it did not act upon the bowels; the urine was only slightly increased in quantity; but its color was changed from red to the natural amber; the dropsy did not diminish. Doubtless if the remedy had been persisted in, more decided effects would soon have followed.

CASE 14.—A woman, aged 78, had suffered for a long time with heart disease; had been dropsical in the face and legs for upward of a year, and in addition, had cough, with much expectoration, loss of sleep and appetite, scantiness of urine, and moderate thirst. After taking twelve grains of extract of cainea, she had six stools, and profuse diuresis, preceded by restlessness and discomfort; her age and debility led her physician to discontinue the medicine.

CASE 15.—A woman aged 65, with very decided enlargement of the heart, had had dropsy of the legs for three months, which was making rapid progress upward; she had but little appetite, thirst or sleep; pulse 125. On the first day she took sixteen grains of the extract; on the second, third, and fourth days, 20 grains; the sixth and seventh days, twenty-four grains; and finally, ten to twelve grains every other day, for nine days more. Almost from the commencement of treatment she had two or three stools per day, and such increase of urine that she often passed between four and five pints per day; from the seventh day onward she had more or less perspiration at night. A diminution of the dropsy commenced on the third day, and the pulse fell to 112; on the seventeenth day she could be regarded as almost well, and was dismissed as cured, as far as the dropsy was concerned, on the twenty-eighth day.

CASE 16.—A woman with ascites took two drachms of the powder at one dose, followed by twelve stools, profuse diuresis, and great relief; she begged to take a second dose herself, but soon after left the city, and did not again report herself.

CASE 17.—A woman aged 35, suffering with ascites for two years, had already been tapped five times; she was much troubled with palpitations, cough, and vomiting; her appetite and thirst were nearly natural, and her urine clear, but scanty. Sixteen grains of the extract were followed by eight profuse passages, but by little or no increase



of urine; on the third and fourth days she took twelve grains, followed each time by six watery stools, and no increase of urine; still the abdomen seemed smaller and softer; the occurrence of pain in the side prevented her from continuing the remedy.

CASE 18.—A woman aged 60, who had suffered for some time with ascites and dropsy of the legs, took one-half drachm of pulv. cainca in one half glass of water, and repeated the dose at the end of two hours, as the first was almost immediately vomited off; her bowels commenced to operate in three hours, and she had five copious stools, followed towards evening by a large quantity of clear, less red, and very frothy urine. On the third and fifth days she took one drachm divided into three doses, followed each time by three stools, and very greatly increased discharge of urine; the swelling of the abdomen and legs had decreased so much that the patient regarded herself as well, in which opinion the physician was obliged to coincide, as he could obtain no more of the remedy.

CASE 19.—A dropsical man aged 55, whose abdomen and legs were very much swollen and hard, took thirty grains, followed by seven stools and profuse diuresis.

CASE 20.—A delicate woman aged 59, with ascites and anasarca, tenderness of the abdomen, white-coated tongue, weak but regular pulse, loss of appetite, and scanty acrid urine, took four grains of the extract every hour for three doses, followed by pain in the stomach, colic, and oppression; but in the course of a few hours she had one copious stool, and more profuse and less acrid urine. On the second day she took four doses of four grains each, followed by three stools with colic, which lasted for many hours, profuse discharges of urine, and sleep lasting five hours, which had not occurred for a long time. On the fourth day she took fourteen grains, followed by four stools without decided colic, and very great diminution of the abdomen. On the fifth day she took eighteen grains without any very evident effect. On the sixth day she took three doses of four grains, each followed by vomiting, without distress or effort, of a large quantity of thick, yellow bile; the urine continued to flow freely, but not excessively copiously; still the abdomen became smaller and smaller, the extremities quite flabby, and she could move with ease. On the fourteenth and fifteenth days she resumed the use of cainca, followed by profuse diuresis, but little or no action on the bowels. As no more of the remedy could be procured, *uva ursi* was substituted, but not before the patient felt almost well; and of the anasarca, only a little swelling of the feet

and walls of the abdomen remained, while the ascites had almost entirely passed away.

CASE 21.—A woman aged 60, who had ceased menstruating for ten years, had ascites with well-marked distension, hardness and fluctuation of the abdomen, dropsy of the legs, cough, oppression of the chest, no appetite, scanty, red, and acrid urine, difficult and scanty stools, and a profuse serous leucorrhœa. On the first, fourth, and sixth days, she took twelve to sixteen grains of the extract, followed by purging and diuretic action, without any irritation or inconvenience, attended with a diminution of the swelling of the legs and abdomen. The remedy was suspended for eight days, but the diuresis and diminution of the dropsy continued, while the leucorrhœa ceased. After taking sixteen grains more, the ascites seemed to have entirely passed away; the patient regarded herself as well, and certainly appeared so for the seven weeks that she subsequently remained under observation.

CASE 22.—A man aged 33, with jaundice, ascites, and anasarca, was seen when in a hopeless condition, and received 12 grains of the extract of cainca, followed by a very dark, pitch-like passage, although his bowels had previously been obstinately constipated, and by the discharge of a very large quantity of dark, brownish-yellow urine, which had previously been very scanty, turbid, red and acrid.

CASE 23.—A woman aged 57 had suffered for eighteen months with ascites and anasarca, and had been treated for eight months, without benefit, with digitalis, squills, &c. She then took 78 grains of extract of cainca, 28 grains of acid. caincicum, in the course of eight days, aided by several doses of croton oil. The action upon the kidneys was great, and the swelling of the legs almost subsided. She died on the ninth day, and was found to have enlargement of both ovaries.

CASE 24.—An originally robust woman, aged 33, had suffered for three years with enlargement of the heart, and after using much digitalis, squills, and nitre, was found in the following condition: Her legs were enormously swollen; abdomen greatly distended; the loins and hips excessively œdematous; heart beating violently over a large surface; inability to lie down; constipation, but little thirst; no sleep; appetite passable; tongue moist, and clean; urine red, scanty, and hot; suppression of menstruation for two years. On the first day she took 16 grains of the extract of cainca, on the fourth and sixth days 20 grains, and on the seventh 12 grains. Soon after the first dose she commenced and continued to have black, tarry stools, and a six-fold increase of urine. On the eighth day, in consequence of slight

dysenteric symptoms, she took some confection of senna, followed by nine copious stools, and increase of the quantity of urine, with more or less malaise. On the tenth day she took 20 grains of the extract, succeeded by increased diuresis, entire disappearance of the dropsy of the loins and hips, and diminution in size of the legs. On the 17th and 19th days she took 20 grains; on the 28th day, 16 grains; on the 34th and 36th days, 24 grains each. After the transient discontinuance of the remedy on the tenth day, the dropsy of the legs gradually passed away, and on the 34th day the ascites had also disappeared; but then a large tumor of the right ovary was discovered. The diuresis persisted, as also the action on the bowels, so that the patient always had two or three, sometimes seven, and after the last dose twelve stools, without colic. The palpitation and other distress about the heart lessened so much, that she could walk a little, and be carried outdoors. Fourteen days after the last dose, there had been no return of the dropsy, and her appetite and sleep were good. During the whole course of the treatment the cainca produced no gripings or gastric irritation, while the heart affection was decidedly relieved and palliated.

CASE 25.—A boy aged  $6\frac{1}{2}$  years had been sick for over a year, with attacks of fever and diarrhœa, followed by disease of the heart and dropsy of the chest and abdomen. His face was sallow, skin dry and warm, pulse frequent; his heart beat over an extended surface—there was dullness on percussion over a large portion of the left side; his abdomen was hard and very much distended, with fluctuation; his feet and legs were swollen; his breathing oppressed, with more or less cough, especially towards morning; his appetite poor; bowels constipated; more or less thirst; urine scanty, red, offensive, and acrid. He was inclined to sleep much. On the first and fourth days he took 6 grains of the extract; on the seventh day, 8 grains; and on the eleventh day, 4 grains, in two-grain doses. Increased secretion of urine quickly took place, and soon it lost its offensive character. On the fourth day he had two, and on the seventh day seven, yellow fluid stools, after which his legs and abdomen almost recovered their natural size; his heart beat more quietly. On the tenth day great tumefaction of the liver was discovered. The improvement and profuse diuresis continued until the 20th day, when he took 4 grains more, followed by three copious stools, and the usual diuretic action. He continued to improve until the 34th day, when a vomica burst. The dropsy did not return.

CASE 26.—A woman aged 52, who had ceased menstruating for

three years, was suffering with enlargement of the heart and some cough, with ascites and dropsy of the feet and legs. In the course of five weeks she took 75 grains of the extract, in 15, 16, and 30 grain doses, and 47 grains acid. caincium, in 4, 6, 10, 12, and 15 grain doses. It acted in the usual way on the bowels and kidneys. On the third day the abdomen was so much lessened in size, that an enlargement of the left ovary could be discovered; and on the eighth day there seemed to be no more fluid in the abdominal cavity, but the feet and legs remained much swollen. She left the Hôtel Dieu before she was perfectly well.

CASE 27.—A woman with dropsy of the left side of the chest took 20 grains of the extract, in 4 to 6 grain doses, every hour, on the first day, and 24 grains on the third day. Profuse diuresis was the first effect, followed by three watery stools, with some colic; the urine became natural in color; the digestion did not suffer; the respiration and cough improved; but the patient thought she became weaker, and refused to continue the remedy.

CASE 28.—A woman aged 36, who had aborted at the seventh month, two months previously, and who had suffered with diarrhœa for three months, was found with considerable dropsy of the legs, ascites, and hydrothorax. In the course of two months she took 166 grains of the extract internally, and had two clysters of 36 and 24 grains each, besides taking 44 grains of *acid. cainc.* The doses were administered on the 1st, 2d, 4th, 7th, 8th, 9th, 12th, 14th, 19th, 20th, 21st, 23d, 37th, 43d, and 55th days; but although the usual diarrhœic and diuretic actions followed promptly, yet the anasarca diminished but little, and that only occasionally, while the ascites lessened not at all; on the contrary, on the eighth day, fever, with restlessness, sleeplessness, and difficulty of breathing occurred to such an extent, that paracentesis was performed, and 8 lbs. of clear fluid evacuated. No particular improvement occurred for seven weeks, when, under the influence of from five to seven watery stools per day, and profuse diuresis, the abdomen and legs began to diminish in size, so that in the tenth week an enlarged and granular liver could be detected, and an enlargement of the right ovary. She recovered entirely, as far as the dropsy was concerned.

CASE 29.—A woman, aged 68, who had suffered with colics for five years, and disease of the liver for three years, after an injury to the right side, was attacked with ascites, attended with oppression, severe colics and fever. For five days she took 4 grains of the extract, night and morning; then, after an intermission of four days, she too k

15 grains per day for four days; on the 16th day her abdomen was natural in size, and her appetite and strength had returned. She was attacked eight days subsequently, after great imprudence in diet, with enteritis, followed by a return of ascites, and she died of colliquative diarrhoea in 19 days.

CASE 30.—A man with chronic laryngitis and oedema of the legs took 8 grains of the extract in two doses, one night and morning, for almost complete suppression of urine; it acted profusely on the kidneys, and produced a decided diminution of the anasarca.

CASE 31.—A woman, aged 37, who had been dropsical for four years, was treated successfully with *acid. caincic.*; it was remarkable that almost every dose produced repeated vomitings of slimy, thick matters, with great relief to the patient. The actions upon the kidneys and bowels were very copious and frequent. The patient had been tapped several times previous to taking the caínca, and the whole disease seemed connected with suppression of the menses.

CASE 32.—A woman, aged 51, had general dropsy and ascites, with oppression of the chest and some fever. Digital, squilla, Oenon. spinos, colocynth, and other remedies had failed. Then rad. caínca, 2 drachms, was infused in 8 ozs. of hot water, and given in table-spoonful doses every two hours. On account of the weakness of the preparation, little or no effect was produced until the 4th day, when the remedy, aided by simple injections, commenced to act upon the bowels, and for seven or eight nights in succession she had three to five stools, with more or less griping, and this diarrhoea continued in a modified degree for three weeks after the little stock (2 drachms) of caínca had been exhausted. On the seventh day of treatment the urine commenced to flow copiously and almost involuntarily; she generally passed at least 16 ounces every night, and more by day. The dropsical swelling abated considerably; her strength was maintained in a wonderful degree; the skin became moist, and the ascites lessened. The caínca was given for only nine or ten days, still its good effects continued for three or four weeks; but gradually its good effects lessened, and then ceased, and as no more of the remedy could be procured, the patient gradually succumbed.

CASE 33.—A robust soldier, aged 60, suddenly became dropsical; after the failure of several remedies, he was received in the Hospital St. Louis with ascites and general anasarca, coupled with some enlargement of the heart; pulse rather slow; urine red, and only a few spoonful were passed, with pain; bowels pretty regular. He took an infusion of 2 drachms cort. rad. caínca, in 8 ounces of water, in

two doses, at an interval of two hours; in the course of 24 or 36 hours he had three copious, watery stools, and profuse diuresis, and his appetite returned. On the third day the same dose was repeated, and he had five stools, and passed nine lbs. of urine in fourteen hours; the dropsy was lessening decidedly. The improvement continued for fourteen days, without a repetition of the medicine, the patient having from three to five watery stools per day, and passing from twelve to fourteen lbs. of urine every 24 hours; his appetite was good and digestion easy, while the only remains of the dropsy were a little swelling upon the back and inner sides of the thighs; he took a third dose of cainca to hasten the cure, which was soon complete.

CASE 34.—A man, aged 37, just recovered from syphilis, was attacked with ascites and general dropsy, with great debility; his urine was exceedingly scanty and red, and his thirst insatiable; pulse slow and weak. He took the above decoction of 2 drachms of cainca, in 8 ounces of water, in three doses, at intervals of an hour. On the following day his appetite was better, although he had had some nausea after the first dose; his urine became more copious and clearer, and he had seven not debilitating stools. He took no more cainca for five days, yet passed from six to eight lbs. of urine per day, and had from three to five copious watery stools daily; the ascites had almost entirely disappeared, and the swelling of the scrotum and legs had lessened considerably. Two days after the second dose he had thirteen or fourteen almost watery stools, and an almost continuous profuse discharge of urine; his appetite and digestion were good. He was dismissed cured at the end of four weeks.

CASE 35.—A soldier, aged 40, had dropsy of the legs, scrotum, and walls of the abdomen. He took the above decoction on the first and second days, followed by a considerable increase of the previously very scanty and thick urine and six copious stools, without colic; after the second dose he had 15 or 16 white or almost watery stools, with violent colic, and the discharge of eleven lbs. of scarcely yellow urine. The patient was weak, pale, and lost his appetite. The colic, diarrhoea, and diuresis continued in a modified degree for three days; on the fourth day the scrotum had almost regained its natural size. On the fifth day the cainca was repeated, and he passed almost 14 lbs. of urine, and quickly recovered without further treatment.

CASE 36.—A man, aged 32, had suffered for some time with disease of the heart; had been dropsical for four months; he was swollen up to his arm-pits; his urine scanty. He took the above decoction every other day for ten days, followed by profuse watery stools, with-

out much colic or loss of appetite; the increase of urine was not very great. He had some vomiting after the last dose, and recovered quickly.

CASE 37.—A man, aged 44, who had just recovered from syphilis, entered the hospital with his abdomen so much distended, that it seemed as if the skin would burst; his legs and scrotum were greatly swollen; his breathing much oppressed, with signs of œdema of the lungs; pulse hard. He took the cainca every other day for 12 days; the urine became copious and almost colorless, and he had from two to five stools daily; his legs became smaller, his abdomen softer, his appetite good, and breathing comfortable. He was comparatively well in a month.

CASE 38.—A young lady, aged 20, had been dropsical for three years; her urine was dark, scanty, and more or less acrid, and she had profuse leucorrhœa; her menses were not suppressed. On the first, second, and third days, she took 12, 14, and 16 grains of extract of cainca at one dose, on an empty stomach; on the fifth, sixth, and seventh days, 18 or 20 grains, in two doses; and, after a pause of six days, took 24 grains daily, either at one or in two doses. It acted principally upon the bowels, causing from two to three or five copious watery stools; still the urine became clearer and more profuse; her appetite, sleep, and color returned. When the remedy was omitted the disease increased again, but as soon as the cainca was resumed her appetite improved, the urine flowed more freely, and perspiration sat in. On the 23d day  $\frac{1}{2}$  drachm of the remedy was given in an injection, followed by three watery stools, with nausea and colic. No more cainca was given, but a profuse diarrhœa continued for a long time, until she entirely recovered.

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*Notes on Venereal Diseases.* By F. J. BUMSTEAD, M.D.

*The Distinct Nature of the Simple and Infecting Chancre. Challenge (at the Point of a Lancet) of Dr. Ed. Langlebert by Diday.*

The old doctrine of the unity of the chancreous virus, first exploded in modern times, by Bassereau, finds few advocates at the present day among writers upon venereal diseases. Evidence constantly accumulates that a difference in the idiosyncrasies of persons exposed, which was so long regarded as the cause of the different effects of contagion, failed to satisfy the minds of the profession, and that the



announcement of the distinct nature of the two species of chancre has been generally received with favor, because it alone satisfactorily explained facts which had come under the observation of almost every practitioner. As a recent indication of the spread of the new doctrine upon this subject, may be mentioned the fact that at the great Congress of German naturalists and physicians, held at Speyer, last autumn, the subject of syphilis came up for discussion, when "most of the physicians present were inclined to assume the existence of a twofold virus."—(Foreign Correspondence of the *Medical Times and Gazette*. See number of this Journal for December 7, 1861, p. 589.)

Among the few who still withhold their adhesion to the duality of the chancreous virus is Dr. Ed. Langlebert, of Paris, who has recently published a series of articles in the *Moniteur des Sciences*, in which he endeavors to prove that "the infecting and simple chancre are not distinct pathological species." Hence has arisen one of those challenges between scientific opponents to submit their views to the test of experiment upon their own persons, for which our French brethren are somewhat famous.

The well-known writer upon syphilis, Diday, of Lyons, who is a *dualist*, (if not also a *duelist* in the present instance,) has written a letter to Dr. Langlebert, which appears in the *Moniteur des Sciences* for February 11, and in which he proposes to meet him at Dijon, accompanied by two patients, the one affected with a simple, and the other with an infecting chancre. Dr. Langlebert was to choose a friend who should inoculate Diday with the secretion of the simple chancre; and a friend of Diday's was to inoculate Langlebert with the secretion of the infecting chancre. The succeeding twenty-four hours were to be passed in friendly *tête-à-tête*, that each might be sure that the other did not fly to the casemate of cauterization, before the bomb had time to explode; when they were to separate, free to employ any means in their power to arrest the progress of the virus. Since, according to Langlebert, the simple and infecting chancres are identical, he would run the same risk as Diday; and the proposition of the latter would satisfy all the requirements of the Code; each would give evidence of his faith in his own doctrines; and the result would go far to indicate which was in the right.

It appears, however, that Langlebert could not see the matter in the same light, for he declined Diday's proposition, alleging as a reason, that, whatever the result of the inoculation of the infecting chancre upon himself might be, it would be of no value in settling the point in question; for, said he, should it produce a chancre with

a soft base, it might be alleged that this was due to previous taint, either hereditary or acquired; if, on the other hand, a hard chancre followed, the result would be equally unsatisfactory to him, (Langlebert,) since he does not deny that an infecting chancre may produce an infecting chancre; on the contrary, he admits that it does so in the majority of instances, but he believes that the one species may give rise to the other, and *vice versa*.

To this Diday replies in the following terms: "I admit with you, *cher confrère*, that the point of doctrine upon which we differ would not be settled by the experiment I proposed to you. But, allow me to remark, it begins to be cleared up by the very fact of your refusal.

"Let us show our cards. Each of us has now a measure of the other's courage in this matter. Between old specialists like ourselves, what is the use of concealing what everybody will think and say? For the interests of science, we might readily consent to contract a soft chancre; but never, to support any theory whatever, would we expose ourselves voluntarily to true syphilis. Upon this point we are agreed; are we not?

"Now, listen to the conclusion. If I consent to inoculate myself with a soft chancre, it is because I am sure that I shall thereby contract nothing but a soft chancre. If you refuse to inoculate yourself with an infecting chancre, it is because you are equally sure that the result can be nothing less than an infecting chancre and constitutional syphilis.

"But you will say, 'By what right do you thus interpret my meaning? By what right do you pretend to regulate my conduct by your opinions? I believe that in inoculating yourself with the virus of a soft chancre, you would run *less* risk than I in inoculating myself with the virus of an infecting chancre; but I believe, nevertheless, that you would run some risk; and however small the danger might be, I could not consent to expose you to it. Your imprudence in incurring it is no proof, nor even a presumption, that it does not exist; and should the inoculation of an infecting chancre upon myself chance to give me syphilis, it would be far from proving that the result would be the same upon everybody, after a like inoculation.'

"Very well answered, I reply in my turn, *cher confrère*. But is your refusal irrevocable? It cannot be; for since it is based upon a mere calculation of chances, I have only to come to the assault with sufficient forces at my disposal."

"You state explicitly that an infecting chancre most frequently

produces an infecting chancre. This is acknowledging that a soft chancre produces the same result less frequently. What is the comparative frequency of the two, according to your experience? Is it four, six, eight, or ten to one? Call it the last-mentioned ratio, if you will. Then, if I prove to you that a soft chancre, inoculated upon ten persons, does not in a single instance produce an infecting chancre; and if I prove, on the other hand, that any individual, taken at random, (I mean yourself,) and inoculated with an infecting chancre, will not fail to contract an infecting chancre, will you not agree with me that this result will serve at least as the commencement of a demonstration?"

"I would therefore reiterate my offer upon the same conditions, with this difference, that instead of submitting myself alone to the inoculation of a soft chancre, ten friends shall also come with me, who have already expressed their willingness to put to the test their faith in a doctrine which alone can reconcile theory with facts. And when, *ten times in ten*, the soft chancre fails to produce an infecting chancre; and when an infecting chancre, *upon the first trial*, gives rise to an infecting chancre, we will let you explain the facts as you please; but you cannot prevent the result—nor your refusal, if you again refuse—from having its due weight with disinterested judges."

To this second challenge Langlebert has not as yet replied.

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*Transactions of the Medical Society of the County of Kings.*

REGULAR MEETING, JUNE, 1861.

Dr. JONES read the following case:

Mrs. F., æt. 27 years, an English lady, residing about seven months in this country, of healthy parents, always residing in the country when in England, and enjoying generally very good health, was delivered by me of a female child after a labor of about six hours, on Tuesday, May 1st, 1860, at 5.20 P. M.

It was a primipara and first presentation. After the delivery of the child, I found the placenta in the vagina, which I delivered, the womb being well contracted, constituting one of the easiest cases it had ever been my fortune to attend. Her bowels were opened on the following morning, by an ounce of ol. ricini, containing a tea-spoonful of tinct. opii camphorata. She urinated during the night, and also at the time that her bowels moved. No change or circumstance occurred

which indicated other than a happy result of her confinement, until Thursday night, at which time she became very restless, moaning and laboring under considerable nervous excitement. I was so informed by the nurse at my visit on Friday morning, at which time I found she had a little fever, a pulse of 100, face slightly flushed, and complaining of wind in her stomach and bowels. I examined her abdomen, but could not detect any tympanitis or pain, either on slight or firm pressure. I ordered the oil to be repeated, together with 3ss. spts. terebinth., and 3j. tr. opii camph., and the abdomen to be entirely covered with a flannel bag containing hops that had been steeped in hot water. Saturday morning she was completely relieved of all unpleasant symptoms complained of the day before, being entirely free from any pain, and expressed herself as being quite comfortable; she had secreted her milk, and her lochia was normal.

At my evening visit, having been sent for, I found her pulse 115 per minute, her respiration 25, and her skin hot and pungent, not unlike that of scarlatina. I ordered spts. mindereri, nitr. æther, three parts of the former to one of latter, and ten grains of pulv. Doveri, the latter to be taken at 9 o'clock P. M.

Her condition remained nearly the same until 12½ P. M., when I found that her pulse, since my last visit at six P. M., had gradually advanced, and not being able to satisfactorily account for her condition, I ordered a consultation to be held early in the morning.

Sunday, 6th, 6 o'clock A. M.—Pulse 145; respiration 30. Tongue dry, tip red, shanney colored; posterior somewhat mottled. Urinated about one pint early this morning, and one pint during the night. Slept at short intervals an hour or an hour and a half, amounting to about six or seven hours during the entire night, but she informed me that she did not feel refreshed by it in the least.

Her skin still the same, with moisture in palms of the hand and soles of the feet.

Complains of pain or tightness across the chest; has slight headache. I ordered a cataplasm to the chest, and a gentle saline aperient 9 o'clock, in consultation with Dr. C. E. Isaacs; condition about the same. Dr. I. thought he discovered a very slight crepitation under the right inferior angle of the scapula, with a slight shortening of the respiratory murmur from the opposite side.

Her saliva by test was slightly alkaline; her urine and perspiration were neutral to test paper; her faeces smelt a little sour, but were also neutral. Dr. I., to use his own language, remarked, that "the enemy was there, but what form he would assume time alone would tell," in

other words, it was impossible to tell the cause of so great a disturbance by any phenomena present. It was decided to place the system immediately, but very gently, under the influence of submurias and opium; therefore, the following:

R.—Hydr. chlor. mitis,     -     -     -     grs. ij.  
Pulv. opii,     -     -     -     -     gr. j.     M.

One to be given every three hours; continue the mindereri mixture, and give a full dose of Dover's powder at night, to produce sound sleep.

3 P. M.—Dr. W. Parker in consultation. Pulse 145; soft, and without force. Respiration 35, and labored. Our opinions concurred in, and the following determined upon, to alternate with the foregoing powders:

R.—Pulv. Doveri,     -     -     -     grs. x.  
Sulph. Quinia,     -     -     -     gr. j.  
P. Gm. Camph.,     -     -     -     gr. ij.     M.

Diet, beef tea, wine whey, &c.

Monday, 7th.—In consultation; condition the same; no sleep; merely dosing; position supine; almost constant moving of the limbs.

9 A. M.—Pulse irregular—147, 154, and 145; respiration 34. Tongue dry; tip red; buff colored posterior; mottled. She passed about two pints of urine at five and eight p. m.; she has had about six hours sleep during the day, but does not feel at all refreshed thereby. Skin burning; palms and feet moist; lochia normal; examined; no pus. No pain could be discovered over the abdomen, uterus, and none complained of in any part of the body.

The child nurses well, and seems satisfied, although there is not a fullness of the breasts. In order to be certain of its presence, I have from its advent ordered the pump to be applied, and invariably found it. The tightness continues in the breasts, but is invariably relieved by the mustard. The inspiratory and expiratory murmurs are normal.

3 P. M.—Condition about the same.

9 P. M.—Pulse 152; no volume; respiration 30; tongue rather dry; red in centre; white coat on sides, extending near to the tip; surface of the body not so pungent; slight moisture; her headache has nearly disappeared, and the lochia quite normal; she has passed about half a pint of urine; color quite normal; her appetite, which up to this time had been quite good, has considerably diminished; no pain, but feels that tightness across her chest which she describes as a drawing of the breasts to an approximation, it being simply uncomfortable; thinks she would be and feel as well as ever she

did if it was not for the intense internal heat or burning sensation, which nothing seems to allay, and from which she only finds temporary relief by the use of the mindereri mixture.

She has shown considerable nervous excitement during the afternoon; she was ordered some Hoffman's anodyne, to be given in the mindereri; her bowels not having been moved since yesterday afternoon, she was advised to take an aperient dose of the effervescing citrate of magnesia.

Tuesday, 8 o'clock A. M.—Pulse 138; a little more volume; respiration 24. Fever less; her face, which had continued flushed all over up to this period, is pale and somewhat sallow.

Her bowels responded to the medicine; her discharge being quite dark, very foetid, and watery. In order to obtain some urine for examination, I passed a well-cleaned catheter, and drew off about a pint, which, upon examination, was found to be quite normal. Her tongue is cleaning off, and her sleep has for the first time refreshed her.

10½ P. M.—Pulse 153; again soft; respiration 28; bowels moved again; the heat and moisture of the surface about the same; chest continues to annoy her; has taken some beef-tea; her headache has returned, and she has a slight hacking cough; examined the chest, but nothing abnormal discovered; her mouth and throat seem to secrete a thick, gummy mucus, which is very tenacious, and causes her quite an effort to dislodge it; her tongue is quite moist and clean. Immediately after taking her last powder, she drank some warm tea, which caused her to vomit. Ordered the powders to be continued every two hours, and alternate them again with the pills, giving the mixture occasionally.

Wednesday, 2 o'clock A. M., 9th.—Pulse 148; respiration 27; tongue the same as at last visit; surface also; urinated since our last visit about one pint; countenance not quite so anxious as at 10 P. M.; no pain; voice much stronger; no tremor; diminution of the secretion of milk; she seems inclined to sleep.

Wednesday, 9 o'clock A. M.—Pulse 133; firmer; respiration 23; tongue rather moist; fever less; passed two pints of urine; lighter color; has taken some beef-tea, jelly, ice-cream, and wine whey; voice firmer; countenance normal; eyes quite clear, and shows considerable animation in conversation; free from pain.

10 o'clock P. M.—Pulse 138; respiration 28; appetite improving; the acceleration of the pulse may be due to the excitement and exhaustion caused by her sitting up in a chair while her bed was being

made; this was not done by our order or suggestion; continued treatment. Warned not to repeat bed-making.

Thursday, 10th, 9 A. M.—Pulse 132; considerable volume, and some force; respiration 26; tongue clean and moist; surface moist; bowels have moved; feces quite natural; passed some urine during the night. Give same medicines, but at intervals of four hours.

9 P. M.—Pulse 140; respiration 27; bowels moved three times, and quite watery, and of the color of Dover's powder, and has voided all of *three quarts of urine*, at intervals; takes sparingly of nourishment, and for the first time complains of slight pains in the bowels; thinks it is wind; feels it rumbling about; no swelling, fullness, or tympanitis.

Friday, 11th, 10 A. M.—Pulse 140; lost its tone; respiration 27 to 34; tongue not so moist; bowels moved twice during the night; she was very restless; wants to sleep, but only dozes; complains of the want of air; it seems to her as though she could not breathe, and is very apprehensive of death. Surface hot; extremities also.

5 o'clock P. M.—Pulse 144; respiration 35; slight pain on heavy pressure in right hypochondria; ordered calomel, grs. ij., opium, gr. j., every hour, until my next visit.

9 o'clock P. M.—Pulse 142; respiration 28; pain relieved; bowels moved three times; tongue nearly normal. Take quinine, grs. iij., with the last powders ordered.

Saturday, 12th, 10 o'clock.—Pulse 133; more volume and firmness; respiration 26; slept but little; raises occasionally that same kind of mucus; skin moist; bowels moved at five and ten A. M.; color light brown; not very offensive; passed her urine when her bowels moved, and don't know the quantity, &c.; lochia very light, and nearly gone; milk entirely suppressed; appetite not very good; intense thirst; trifling pain in the right hypochondriac region, but it was transient; countenance anxious; sighs almost constantly; *tongue quite normal*. Continue the same treatment.

10 P. M.—Pulse 128; respiration 28; marked improvement in various ways; being more cheerful countenance, less anxious; has ceased sighing; tongue normal; no pain; takes and enjoys her food. R.—Sol. sulph. morphia, Majendi, gtt. x.: To be taken as soon as procuréd; continue calomel, quinine, and opium.

Sunday, 13th, 11 o'clock A. M.—Pulse 134; respiration 28; tongue slazy down the centre; bowels moved once; very dark and fetid. This is the twelfth day since her confinement, and this morning we find her chest covered with vesiculous eruption, extending up as high



as the clavicle, down each side beyond the breasts, to about the eighth rib, being thickest on and between the mammae; some of the vesicles were by measurement three-eighths and five-eighths of an inch in diameter, others as fine as the thirty-second of an inch, all filled; little red, inflamed spots, upon which subsequently were developed vesicles of like appearance, were scattered all over the chest, and one bullæ marked the ball of each finger, well filled, and about the size of a three-cent piece; the fluid was at first quite transparent; rounded in form, with a very narrow but bright-red areola; some of the vesicles were filled with a liquid of a most beautiful pearl color, and resembled dew-drops on a blade of grass in the morning, just as the early rays of the sun reach them; omit the calomel.

6 o'clock, P. M.—Pulse 145; respiration 32; her bowels have moved three times since 11 o'clock A. M.; very fetid, watery; tongue slazy; eruption on it and lips; no difficulty in deglutition; passed some high-colored urine; thirst not so intense; complains of feeling much exhausted; sighing returned; is quite anxious; the bullæ rapidly increasing in size. Urine alkaline, and filled with the triple phosphates. R.—Sulph. quinia in sol., grs. iij., every three hours, with as much Jamaica rum, wine, champagne, as she can bear.

12 o'clock.—Pulse 150; respiration 40; sinking.

Monday, 14th, 10½ A. M.—Pulse 160; respiration 54. Bowels moved twice; discharge very offensive and dark; urine in quantity, but highly colored; eruption extending down upon the epigastrium, increasing in diameter; some have burst, leaving a very bright-red spot; the cuticle somewhat shriveled, and quite dark, and very thin; many of them remain quite as fine as at their first appearance; some of them now contain dark, grumous fluid, whilst a large majority contain a cream-colored one. Tongue and throat covered with the eruption; she is in a constant tremor from head to foot; continue the nervines and stimulants.

5 o'clock, P. M.—Pulse 153; respiration 45; bowels moved; less offensive, watery; voice tremulous; eruption darkening on the fingers; countenance Hippocratic.

We were called at about 5½ o'clock, on Wednesday morning; I arrived in time to see her expire, which she did with comparative ease. Dr. Isaacs came shortly after I left, when, as I am informed, there could not be discovered the slightest trace of the eruption.

This was the last call ever made by our much lamented and respected friend, Dr. Isaacs.

The very sudden and alarming change in my patient's condition,

*without any appreciable cause*, led to my promptly calling for counsel. If we commence on the third day, we find a pulse of 100, and a slight restlessness preceding it on the night before; on the fourth day, a pulse of 145, and respiration 30, her sleep not refreshing her in the least, and other symptoms indicative of or accompaniments of fever; this fever, continuing with slight exacerbations until the advent of the eruption, without the slightest trace of the cause, except a slight pain in the right hypochondriac region, a sense of constriction across the chest, readily relieved by simple cataplasms and a movement of the bowels three or four times during twenty-four, and six times during the forty-eight hours immediately preceding her death.

Was it an inflammatory disease? The pulse was one of irritation, and the general character of the fever was asthenic; so likewise was the eruption asthenic in type.

Was it a disease, then, of irritation; and if so, where was it located?

I am inclined to the belief that it was not true pus-poisoning, but that plasma or exudate, thrown out previous to the formation of pus, was taken up in the circulation, and being catalytic in its operation, created a condition of irritation which subsequently developed itself in the eruption, and had so attacked the nervous system, as to exhaust it, thereby rendering nature unable to rally after the crisis of the eruption.

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### QUARTERLY REPORTS ON MEDICAL PROGRESS.

#### REPORT ON OBSTETRICS.

By T. GAILLARD THOMAS, M.D.

1. *Laceration of the Perineum, with Destruction of the Recto-Vaginal Septum—Operation, and Result.* By C. C. F. GAY, M.D. (Buffalo Medical and Surgical Journal.)
2. *Case of Puerperal Convulsions treated with Chloroform.* By ALFRED WHARTON, M.D., St. Paul, Ma.
3. *A Case of Rupture of the Uterus.* By E. L. HOLMES, M.D., of Chicago. (Chicago Medical Journal.)
4. *Abdominal Extra-Uterine Pregnancy.* By Dr. AUBINAIS. (Gazette Médicale, No. 44.)
5. *Osteomalacia.* By Dr. C. C. T. LITZMANN. Translated by Dr. J. Mathews Duncan. (Dublin Hospital Gazette.)

1. Dr. C. C. F. Gay, of Buffalo, N. Y., relates a case of ruptured perineum in a lady 31 years of age, of 2½ years' standing. The

symptoms accompanying the lesion were inability to control the contents of the rectum, and frequent copious fluid dejections. The laceration involved the sphincter and recto-vaginal septum. The operation of Dr. Marion Sims was resorted to; it lasted one hour and a quarter, and after it the wound was dressed with water dressings, while opium was used with freedom. The operation was performed on the 16th November, and on the 28th December the patient was well enough to ride out, the parts being perfectly restored to their normal state.

2. The woman was a primipara; had had six convulsive seizures; pulse 110—feeble; os contracted. Chloroform at once checked the attacks; and being kept up for five hours, was discontinued, without return. Patient was safely delivered of a still child.

3. The patient, an Irish woman, æt. 32, was in fourth confinement. Liquor amnii discharged fourteen hours, but uterine efforts had been strong only for from two to four hours. Previous health good; former labors difficult and slow. The os was dilated, head presenting; pains moderate, occurring at intervals of ten or fifteen minutes. At end of six hours from this time, os fully dilated, and head passed superior strait. The Dr. left the room for a few moments, returned, and found the patient dying. With a pain, she had shrieked, fainted, and labor had ceased. Symptoms: great abdominal pain; thirst; cold extremities; hurried breathing; pulse scarcely perceptible. Brandy was administered, and version performed. The rupture was found (upon introduction of hand) to be at fundus about  $4\frac{1}{2}$  inches long. Death occurred three minutes after delivery.

4. The patient, aged 34 years, took, at the time when she expected her periods, for two days in succession, 30 grammes of castor oil; the second dose produced great retching, after which she experienced great pain in the region of the left ovary. A flow of blood through the genital parts took place at the same time, and was considered as the menses.

Her health continued variable.

A retention of urine caused the abdomen to undergo examination, and a tumor, which increased daily, was discovered in the left iliac region, where the patient felt a dull pain. This, and the absence of the menstrual discharge, made extra-uterine pregnancy probable.

Six months after the beginning of the symptoms, the tumor attained the size of a child's head which had come to its full time, and the touch enabled us to ascertain that the tumor was separate from the uterus, and that this organ contained nothing. Auscultation discov-

ered a blowing sound; but neither active motion nor sound of the heart of the fœtus was discovered.

A month after, the woman was attacked with pains resembling those of childbirth; they intermitted in the same manner; the vaginal touch, in revealing the vacuity of the uterus, discovered in the rear, and a little higher, a hard tumor, which seemed ossified, and seated in the highest part of the curve of the sacrum.

The situation of the patient was considered too critical to practice gastrotomy; she died during the day.

*Autopsy.*—The abdominal walls being incised, the tumor was displayed; it was a cyst as large as the head of an adult, filled all the left half of the abdominal cavity, and ascended to the epigastric region. It was opened, and about 100 grammes of liquid escaped, and a fœtus doubled on itself appeared.

The cyst was independent of the uterus, above which it was situated.

The placenta occupied the right and upper part, and the fœtus the left.

The walls of the cyst were formed in front by the corresponding part of the parietal peritoneum, even to the os uteri, and at the back also by the peritoneum, to the recto-uterine *cul-de-sac*.

The lateral walls were formed on two sides, by the anterior and posterior faces of the broad ligament.

The vesico-uterine and recto-uterine *culs-de-sac* formed the inferior part of the cyst, the superior side of the uterus forming the base.

This base was continuous at the right and left with the trunks, which ascend vertically in front, to the level of the placental region of the cyst.

As to the superior and right side of the cyst, which corresponds with the insertion of the placenta, it is more complex; it is run through by a portion of intestine, flattened like a ribbon and adhering, which extends obliquely from the superior, anterior, and left part of the cyst, to its inferior, posterior, and right part. It is the sigmoid flexure of the colon, of which the development of the cyst has determined the passage.

After having removed the mesocolon and the sigmoid flexure, a fibrous membrane peculiar to the cyst was found, the thickness of which was considerable in all the region of the placenta.

This covering could not be separated from the placenta without disclosing the substance of that organ. It formed the external wall of numerous openings, which, after creeping through the space of some

centimetres, was plunged in the thickness of the placenta; the umbilical cord reached the placenta by the anterior side.

One membrane only was found at the foetal front of the placenta; it formed alone the chorion and amnion, and was, with the peculiar covering which we have described, on the external face of the placenta.

The uterus had scarcely more volume than when in a state of vacuity.

The external orifice of the neck admitted the extremity of the finger.

The cavity of the body, sufficiently developed, presented a very thick mucous membrane.

The ovaries were outside of the cyst.

5. The following brief extract from Braun's Midwifery sufficiently indicates the importance of the degeneration known as Osteomalacia, in its obstetrical relations:

(" *Osteomalacia*, in its various degrees, usually results in pelvic deformities, which are designated as the *triangular heart-shaped pelvis*, or *cocked-hat pelvis*; and in its severest form, as the "*knave of clubs*" pelvis. In all osteomalacious pelves, the angles of the triangle fall in the two sacro-iliac and the pubic symphyses; the horizontal *rami* of the pubic bone, instead of being curved outward, are straightened or even curved inward, so that they approach one another for a distance of several lines, perhaps inches, thus producing a beak-shaped protrusion of the pubis and the *mons veneris*. At the superior strait the promontory of the sacrum and the *tubercula ilio-pubica* approach each other to such an extent that the cords of the arcs and the transverse diameter measure very few inches, or even lines, while the conjugate diameter is, if at all, but very slightly diminished. Both iliac bones rise abruptly, and are very concave, as though they had been rolled up. The anterior pelvic wall is usually higher than the posterior. The sacrum is cracked transversely, and very concave; the coccyx bent forward, approaching close to the promontory. In consequence of the great inward prominence of the ischiatic tuberosities, the inferior strait assumes an hour-glass shape. The pubic arch forms an acute angle, so narrow, that at times the finger cannot be forced through it in order to make an examination. The posterior half of the inferior strait, while it is, to be sure, generally somewhat broader than the anterior, is still decidedly contracted. The bones are soft, and by the employment of a little force in introducing the hand, the pelvic dimensions may be slightly increased, as has been observed by Barlow, Von Ritgen, Feist, Lange, Von Siebold, and others.

"The condition of the vertebral column in osteomalacia is charac-

terized by an arcuate curvature of the spine, with elevation of the pelvis from the sacrum and the ischial tuberosities.")

"Osteomalacia, anatomically considered, depends upon a softening of the osseous tissue advancing from the centre towards the circumference—an osteoporosis, or eccentric atrophy."—CURLING.

"The reticulated frame-work of the spongy substance becomes thinner and more delicate, wastes more and more; the medullary spaces are enlarged and run into one another, to form larger cavities. The compact cortical substance is more and more opened out by the disappearance of the bony tissue; its vascular and medullary canals become wider, and from the solid cortex is formed a spongy texture, with larger and smaller spaces. The cavities produced in this way become filled with a peculiar marrow, which is probably the result of a transformation of the dissolving osseous tissue itself."—VIRCHOW.

"The attenuation of the bony structure attains different degrees; in the higher, there remains only a thin external cortical layer; indeed, even this itself disappears to a greater or less extent, and the bone in a certain sense may be reduced to periosteum and marrow. The dissolution always begins in the centre of the bone; in short bones, in the interior of the spongy substance; in flat bones, in the diploe; in long bones, in the spongy substance surrounding the medullary canal, and the change advances outward towards the cortex. In the flat bones, the inner spongy layer increases in bulk at the expense of the thinning layers of the bony cortex. Here and there the thinned external bony layer and the adjacent periosteum are pushed outward in a swelling by the exuberant spongy tissue; occasionally gaps appear in the outer layer of the bone, and the spongy substance of the diploe is laid bare in spots; frequently the rarefied diploe at last completely disappears, and the cortical layers of the bone are brought into contact with one another, and cohere. The highest degree of the atrophy is observed in the long hollow bones of the extremities. By the progressive production of medullary spaces, the medullary canal is more and more enlarged, and a spongy, loose cortical layer, often thinned even to transparency, incloses a large-celled spongy tissue, or even naked medullary substance. Now and then, there are observed indentations of the thin bony cortex, which project into the medullary cavity, and sometimes the medulla bulges out like a hernia through holes in the outer cortex. In the extremest cases, the bones are changed into fleshy cords, on whose surface there are seen still adhering in some places, thin, small, bony layers under the periosteum; or

every trace of bony tissue may have disappeared, and only membranous sheaths of periosteum filled with medulla are to be found.

"In the tubular bones the process always begins first in the denser and more compact shaft, or middle portion, and extends thence to the more spongy ends. The lower extremities are, as a rule, more violently affected than the upper; the parts of the limbs nearest the trunk are usually found diseased in a higher degree than the more remote; in the spinal column, the affection for the most part diminishes in intensity from below upward. The bones least implicated are always those of the cranium and face. The teeth remain constantly exempt, except that in consequence of softening of the alveolar border, they sometimes become loose and fall out. The cartilages also maintain generally their normal condition; only in some few cases they are found to have become thinner, or more easily separable, than is natural from the underlying bone.

"The changes which the dissolving osseous tissue undergoes in its transformation into medulla have hitherto been but imperfectly made out. In the diseased parts the bone-corpuscles are found enlarged and irregularly rounded, their canaliculi shortened and widened, and their interior filled with fat. Most observers find in this an indication that the softening of the tissues proceeds from the bone-corpuscles. Dalrymple alone is of opinion that the softening begins in the continuity of the bone-corpuscles, (in the medullary spaces and canals,) and that the changes in the dimension and form of the bone-corpuscles are secondary, and produced by absorption of the dissolved tissue in the neighborhood. The dissolving osseous tissue appears almost, as a rule, to lose first its calcareous salts, and thereby to be softened; often, perhaps, continuing for a considerable time in this condition, before changing into medulla, at the same time partially retaining its form; more frequently experiencing a transformation into a sort of areolar tissue, which by-and-by becomes a fibrous connective tissue."—ROKITANSKY, WEBER, LAMBL.

"The new marrow which fills the enlarged hollow spaces exhibits very various characters, which depend partly upon the degree and duration of the morbid process, and partly also upon the nature of the etiological influences. The difference is observed not only in different bones of the same individual, but also in different parts of the same bone. Often it is mixed up with the remains of the osseous tissue, which has advanced more or less in the softening process. In consistence, the marrow is sometimes quite fluid, almost serous; often it forms a viscid, oily, half-fluid, honey-like or jelly-like mass, or a



soft pulp; not rarely it may be called fleshy, or compared in consistence with the parenchyma of the liver. The color of the medulla is chiefly modified by the blood and fat contained in it; there are all intermediate shades, from the palest yellow or yellow gray, to the darkest red, brown red or black red. In the beginning of the disease it is always very rich in blood, and of a dark blue-red or red-brown color. The blood is partly contained in the dilated vessels, and partly is extravasated. By the microscope may be recognized in the mass both abundant unchanged blood-corpuscles, and abundant groups of brown-red pigment molecules. Not unfrequently considerable clots of extravasated blood, advanced to different stages of metamorphosis, are found mixed with the marrow. The progress of the hyperemia is, as a rule, indicated by a copious production of round granular cells, some having one, some having more than one nucleus. In the same situations are occasionally found small, simple and laminated amyloid corpuscles, (Rokitansky;) rarely and exceptionally single caudate cells, (Dalrymple.) With the abatement of the hyperemia, the production of new cells diminishes, the elementary structures generally undergo fatty degeneration and break up, the marrow loses color, becoming clearer and yellower, and in the extreme cases the bone seems, as it were, gradually to change into fat.

"Chemical analysis of the diseased bones must of course yield results varying according to the stage of the disease, the degree of destruction, and the character of the etiological influences. Speaking generally, the results hitherto gained in this way are of small value. As it is the rule, that first and chiefly the mineral constituents of the bones are removed, so we find the quantity of these almost always diminished; sometimes the carbonate, sometimes the phosphate of lime appears to be resorbed in greater quantity. The chemical composition of the cartilage of bone shows no change. With the advance of the disease, however, more and more of this disappears, the bone being gradually replaced by medulla. By boiling, gluten is sometimes found in the organic substratum of such bones; but in bones very much destroyed, no substance resembling gluten or chondrin can be any longer discovered. The fluids of the medulla have often an acid reaction, but this is not constant. C. Schmidt, in his case, found that the fluid contained in the centre of the hollow bones had an acid reaction, and on boiling did not coagulate in the slightest. By chemical investigation, he discovered that besides excess of phosphoric acid, there was also lactic fluid, in combination with lime, in the contained fluid. With this coincides a later observation by O. Weber.

Virchow, on the contrary, found in a case of puerperal osteomalacia, the soft jelly which filled the interior of the bones, to be, in fresh sections, of strong alkaline reaction, and to contain a substance distinguishable from ordinary solutions of albumen by the precipitate, which acetic and *in minimo* produced at a low temperature, and by the solubility of the precipitate produced at a high temperature by nitric acid, in the acetic acid solution. On one hand it had relations to casein, and on the other it showed much resemblance to a substance which Bence Jones believed he had demonstrated in the urine, in the case of Macintyre, to be a hydrate of deutoxide of albumen. Unfortunately, Virchow did not examine his patient's urine. The urine seems to be the vehicle by which, in this disease, the dissolved osseous substance is removed from the body. In several cases where attention was paid to its condition, it was found remarkably rich in phosphate or carbonate of lime; on standing, it deposited a white chalk-like sediment, which in one case became dissolved with effervescence, on the addition of an acid. Sometimes it was in the intervals of freedom from pain, sometimes during the paroxysms of pain themselves, that the urine chiefly exhibited this condition. Frequently gravel and calculi were evacuated with the urine, or found in the kidneys after death.

"The affected bones are distinguished, particularly throughout the first stages of the disease, through their abundant quantity of blood. In the commencement, the volume, especially of the flat bones, is found to be somewhat increased. Later, in consequence of interstitial absorption, the volume generally diminishes more and more, because a part of the softening tissue is dissolved and removed without any compensating addition being made. The diminution of bulk is most easily observed in those bones which are subjected to strong pressure, particularly the vertebrae, which have the appearance of being more or less compressed or distorted. The bones of the lower extremity, after long duration of the disease, and even although they themselves continue unaffected by the disease, are generally contracted in bulk through concentric atrophy in consequence of continued disuse. The weight of the diseased bones is determined not only by the greater or less loss of bony substance, but also by the fluid contents. In the fresh state they are frequently heavier; when dried, generally lighter than normal; often, however, particularly when very rich in fat, they are also, even when fresh, so light as to float on water.

"As the disease advances in the bones, their power of resistance is more and more lost, so that under their ordinary burden, they yield,

bend, or become angulated or break. In the higher degrees they may without difficulty be cut with a knife, even without grating. The diminished power of resistance depends partly upon the extent to which the firm calcareous bone tissue has disappeared, and been replaced by a soft limeless structure, and partly upon the greater or less infiltration of the tissues. So long as an osteoporotic bone possesses even an attenuated scaffolding of bony substance containing more or less lime, a connected network of bony spiculæ and fibres, or a cortex through a thin one of compact bone tissue, it will bend at an acute angle, or break under the influence of even slight forces. If the lamellæ and spiculæ of bone substance are, however, very thin, the bone, if highly infiltrated, is to a certain degree flexible, and breaks only under increased loading. Drying always renders the bones more brittle and fragile. Several days of immersion in water restores to the dried bones their former flexibility."—PLA——.

The more the connection of the parts of the frame-work of the structure is interrupted, and instead of continuous bony lamellæ or an inter-dependent network of bone-fibres, there remain only isolated fragments of bone, held together by a soft, limeless texture, a sort of connective tissue or marrow; or should even every trace of firm bone-tissue have disappeared, and the bone be reduced to periosteum and marrow, the greater naturally becomes its flexibility. Such bones have lost all their elasticity, and may be bent and kneaded like wax; indeed, in Bevan's case, they were called "as limber as a rag." Still, there are not yet sufficient grounds to justify the adoption, with Kilian, of two different forms of the disease—an osteomalacia fragilis, and an osteomalacia cerea—corresponding to the two different degrees or kinds of diminished power of resistance in the diseased bones. Not only do the two extremes, having no distinct limits, as we have seen, pass into each other through intermediate forms, but they may also present themselves either simultaneously or successively, in the same individual, or alternate with one another, according to the greater or less infiltration of the morbid tissues. In individual cases, indeed, sometimes the one and sometimes the other form may predominate. There are cases recorded where patients have suffered seventy fractures or more, one after the other. The ribs, the clavicles, the bones of the extremities, and the branches of the pubic bone, seem to be especially liable to be broken. The fractures are sometimes complete, sometimes incomplete. The several bones remain often ununited, or the union takes place incompletely; in other cases, they unite in the usual way by the formation of a callus, which sometimes after a longer,

sometimes a shorter period, becomes ossified, and in the end may even attain a greater solidity than the neighboring bones. In the case of Goodwin, it was believed in the lifetime of the patient that the bones of the arm were broken; but investigation of the dead body showed that the indications of fracture were produced by a softening, which, though circumscribed, penetrated through the whole thickness of the bone, with complete destruction of the compact vortex. The supposed fractures had been similarly produced without the application of violence from without, after acute pains had continued in the parts for a longer or shorter time; several times was an apparent re-union followed by a recurrence of separation, with reappearance of the pains.

"In recent times there has been an ever-increasing tendency to regard osteomalacia, from an anatomical point of view, as a chronic inflammatory process in bone; a periostitis, (H. Meyer;) a parenchymatous ostitis, or a degenerative ostitis, (Virchow.) It remains for future inquirers to pursue the investigation of the forms of this process in their individuality, for it evidently does not exhibit merely graduated differences, and particularly to mark out exactly the different etiological influences and their modes of action, and to determine the power they exert over the progress of the disease."

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#### REPORT ON THE THEORY AND PRACTICE OF MEDICINE.

By MARK BLUMENTHAL, M.D.

1. *Causation of Typhoid Fever.* By M. SIMON. (Lancet, January, 1862.)
2. *Hill on Pulmonary Consumption.* (British and Foreign Medico-Chirurgical Review, 1862.)
3. *Aphonia in Tubercles of the Lungs.* By Prof. MANDL. (Dublin Quarterly Journal, February, 1862.)
4. *Priory on the Treatment of Phthisis Pulmonalis.* (Boston Medical and Surgical Journal, January 23, 1862.)
5. *Quinine in the Dropsy of Scarlatina.* By Dr. HAMBURGER. (Gazette des Hôpitaux.)
6. *On Diphtheritic Paralysis.* By M. ROGER. (London Medical Times, January 4, 1862.)
7. *Amputation of Tonsils in Diphtheria.* By M. PAULLOT.
8. *Traitement préventif du Croup par le Tannage du Pharynx.* Par Mons. LOISEAU. (Journ. Méd. et Chir., Art. 61, 32.)
9. *Notice sur l'Angine Couenneuse.* Par M. le Docteur BOTTE. (Gaz. Méd., November 2, 1862.)
10. *Diabète Suéré.* Par Mons. RIGODIN. (Gaz. Méd., November 2, 1862.)

11. *Cider in Diabetes*. (Berkshire Medical Journal.)
12. *De la Rage, considérée au Point de Vue de l'Hygiène Publique, et de la Police Sanitaire*. (Arch. Gén., December, 1861.)
13. *On the Bad Effects of Marriages amongst near Relations*. By Prof. DUVAY. (Edinburgh Medical Journal.)

1. In the last printed report to the Privy Council, (April, 1861,) M. Simon thus expresses himself strongly in favor of the essentially contagious character of this disease, and its specific power of infection: "Since I last reported generally on the subject of Typhoid Fever, (1858,) an addition has been made to the literature of that disease, by the publication in the *Lancet* (July, 1859, and March, 1860,) of a series of papers by Dr. William Budd, of Bristol. Dr. Budd's opinions as regards the character of typhoid fever are as follows: That the fever is essentially contagious; that the living human body is the soil in which the specific poison breeds and multiplies; that all the emanations from the sick are infectious; that by far the most virulent part of the specific poison by which the contagion takes effect is cast off by the diseased intestines of the fever patient; that the *characteristic affection* of the bowels in the disease is in reality the specific eruption of a contagious fever; that the sewers and other places into which all this virus passes are the principal channels through which the fever is propagated; that they propagate it *solely in consequence of being the channels for the diffusion of this poison*; that it is no more the offspring of common sewerage, than mildew is the actual offspring of damp and decay; and that by placing two ounces of caustic solution of chloride of zinc in the night stool, on each occasion before it is used by the fever patient, the intestinal discharges may be entirely deprived of their contagious powers."

To anticipate some arguments which might be urged against parts of this doctrine, Dr. Budd observes, that "typhoid fever scarcely ever reattacks a person who has once suffered it; and that like malignant cholera, dysentery, yellow fever, and others that might be named, this is one of the great group of diseases which infect the ground."

"The facts which Dr. Budd adduces from his own experience and from that of other observers are, in my opinion, sufficient to prove that the contagion of typhoid fever is importable by persons who have the disease. Indeed, on this point Dr. Budd's history of the North Lawton fever and its offshoots (*Lancet*, July 9,) is more conclusive than anything previously known to me. And his arguments are also, I think, cogent to this general effect, that specially the bowel discharges of the disease are means (yet not therefore necessarily the

sole means) by which a patient, whether migrating or stationary, can be instrumental in spreading the infection of typhoid fever. Provisionally these conclusions must be acted upon in their present unqualified form; but doubtless it is of practical importance to learn, as exactly as possible, whether it is in all states and under all circumstances, or only in certain states and under certain circumstances, that the bowel discharges of typhoid fever can effect what is here imputed to them. Typhoid fever seems to be in its causes, as in its nature, very intimately related to other diarrhoeal affections."

The reader will perhaps remember, that during the prevalence of cholera in Germany,\* Dr. Pettenkoffer, of Munich, and Professor Thiersch, at Erlangen, made some exceedingly interesting experiments and researches, with a view to determine the infectious element of the disease. Although their labors and observations were carried on entirely independent of each other, they arrived at nearly the same conclusion, namely: that cholera could be, and actually had been, conveyed from place to place, by means of the decomposing intestinal evacuations from cholera patients. Prof. Thiersch went even farther, and has been led to believe that the decomposing evacuations of diarrhoea patients may, during the prevalence of cholera, give rise to the disease when deposited and accumulated in cesspools, or in the closets of houses which are not cleanly kept, be it from carelessness or from imperfect sewerage.

2. The mystery which has so long enshrouded, and which still beclouds the primary causation of phthisis pulmonum, as well as the appalling frequency of the disease, and its non-amenability to our remedial means, excepting perhaps under the most favorable and special circumstances, all tend to make the subject of consumption one of unexceeded interest and importance to the physician, as well as to all humanity.

Many remedies—too many, indeed—have from time to time been lauded to the skies, only to sink into merited disrepute soon thereafter; until many, both in and out of the profession, have arrived at the conclusion that it is vain to look or hope for a remedy in this disease.

Still, we have within the last 15 years half believed that a remedy had been found in cod-liver oil; and although this hope has rather lost than gained since five years, we yet, now and then, find facts brought before us that must arrest our attention, and encourage us once more to have faith and perseverance.

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\* In 1854.

a. Among those who have had large opportunities for correct observation, is Dr. Hill, and he gives us the following hope-inspiring statistics. It is true they do not show cures, but only improvement—but even this is acceptable, under the circumstances.

The total number of cases treated was 174.

Of these, 103 took the cod-liver oil—71 did not.

Of the 103 who had oil, 64, or 62.13 per cent., improved.

Of the 71 who had no oil, 29, or 40.84 per cent., improved.

Of 83 males that took oil, 52 improved.

Of 20 females that took oil, 12 improved.

Of 47 males that had no oil, 16, or 34.05 per cent., improved.

Of 24 females that had no oil, 13, or 54.15 per cent., improved.

Patients treated with oil:

Of those in 1st stage, 75 per cent. improved.

“ 2d “ 80 “ “

“ 3d “ 41.66 “ “

Patients treated without oil:

Of those in the 1st stage, 50 per cent. improved.

“ 2d “ 50 “ “

“ 3d “ 36.2 “ “

As regards the importance of pulmonary hæmorrhage as an indication of the probable duration of the disease, Dr. Hill found that the cases unaccompanied by bleeding from the lungs are more acutely fatal than those which present that symptom. Thus, while the average duration of the former class was one year and eight months, that of the latter was two years and six months.

This is also, I believe, the experience of most practitioners, and tends in a measure to qualify the prognosis in a given case; so that, although the occurrence of repeated hæmorrhages is, in point of diagnosis, often of very great and evil-foreboding importance, it is, on the other hand, an indication of the comparative chronicity of the disease. On this last point our author says: “As regards the duration of a case, it is well known that the extreme limits are separated by a wide interval. That from which commences an attack of pneumonia, and terminates in the pathological condition of ‘cheesy hepatization,’ may bring its victim to the grave within a very short period. Cases also of ‘acute tuberculosis,’ and those which are hastened to their end by any fatal inter-current attack, such as meningitis, may of course be of much shorter duration than ordinary cases, and therefore should be omitted, in endeavoring to ascertain the average duration of the latter class, of which the shortest that has come under my notice is that of



a lad aged 19, who, as far as could be ascertained, was in good health and quite free from cough four months before his death. One of the most protracted cases I have observed was that of thirty years."

The frequency of complications is shown by the following figures.

In 220 cases, there was

Pneumothorax.....	in 6.
Laryngeal affection.....	" 17.
Fistula in ano.....	" 5.
Tuberc. meningitis.....	" 3.
Tuberc. peritonitis.....	" 2.
Tuberc. in intestin.....	" 5.
Albuminuria .....	" 3.
Disease of bones.....	" 3.
"        supr. ren. capsules .....	" 1.

3. "In opposition to the ruling and apparently well-founded opinion, that the alteration of the voice in the course of tuberculosis of the lungs is due to a local disturbance, (catarrh. tub. of larynx,) Professor Mandl puts forward another view; he says these changes are not always the cause of the changes of voice, but that they may be looked upon as a functional disturbance of the recurrent nerve. Division of the recurrent nerve in animals gives rise to aphonia, difficulty of breathing, and closing of glottis; so he conceives that the aphonia in tuberculosis is caused by pressure of the infiltrated portion of lung and bronchial glands on this nerve. This aphonia accompanies tuberculosis of the left side seldomer than of the right. The recurrent nerve of left side, passing between the trachea and œsophagus, is more protected from pressure than on the right side. In children before the 4th year, the alteration in voice is very rare; not frequent before puberty, and more rare in women than in men. The first of these facts Mandl tries to unite with the statement of Lanzetti, that in young animals the section of the recurrent does not produce aphonia; its rare occurrence in females is explained by the similarity of the organ to that of infancy. After section of the nerve or its compression, fatty degeneration and atrophy of the internal muscles of the larynx occur. This Mandl ascertained on the dead body. By laryngeal inspection on the living, paleness of the mucous membrane and limited motion of the vocal cords have been observed.

4. In a recent communication to the French Academy of Medicine on the treatment of phthisis, M. Piorry presents the following summary of conclusions:

1. Pulmonary phthisis is a collection of numerous morbid phenomena, and not a morbid unit.

2. There does not exist, nor can there be, a special or specific remedy for it, to destroy a unit that has no existence.

3. That consequently, iodine, tr. of iodine, no more than chlorine, salt or tar, can be considered as anti-phthisical.

4. That it is necessary, in order to treat phthisical persons properly, to appreciate and specify the particular organic affections which they present, and to meet them with appropriate remedies.

5. That hygienic precautions, intelligently advised, may prevent the development of tubercle.

6. That by proceeding in this way, by combating the particular affections which occur together or succeed each other, we have a rational treatment of phthisis, which can show a fair number of perfect cures, and a very large number of palliated cases.

5. Dr. Hamburger has given this drug in 47 cases, and in 44 improvement took place at once, or in a very few days; in three cases only was there no change for better or worse. The effects observed were, a diminution of the febrile symptoms, and increase of the urinary secretion, which became more clear; absorption of effused fluid, even the resolution of abscesses already formed; return of appetite and strength.

The urine, nevertheless, continued to be albuminous for some time, but this was no obstacle to the progress of the convalescence.

According to the summary which Dr. H. gives of his cases, it was in the chronic form of scarlatinous dropsy that the action of quinine gives the best results, and is manifested with the greatest rapidity. In cases of this kind, improvement commences almost immediately after the first doses. At the commencement, so long as the acute period continues, the employment of the quinine may be deferred for a few days, unless the danger is imminent.

On many occasions, Dr. H. has seen the condition of the patient remain the same for many days, or to be gradually growing worse; the urine very dark, and the dropsy increasing. The quinine was then given boldly, and a happy result was the consequence. If a marked improvement is not manifested in three or four days, however, the remedy must be dropped; but even in this case it should not be regarded as entirely useless, for it seems to act upon the specific character of the disease. The dose to be given is from  $\frac{1}{2}$  to 2 grs., twice daily, for children, and 3 or 4 grs. for adults.

During the use of the quinine, the diet should be carefully watch-

ed, great care being taken not to overtask the very irritable alimentary canal, by overloading it with food or drink.

6. Diphtheria has within the last few years so much infested our population in many portions of our country, and its causes, frequency, duration, complications, course and treatment are as yet so undefined in the minds of the profession generally, that all information that can be gathered from the experience of others is exceedingly welcome. It is in this conviction that we transcribe the following abstract from a paper by M. Roger, of Paris. He says:

"Of 210 cases of diphtheria at the Hôpital des Enfants, 31 were followed by paralytic symptoms. The proportion is probably greater, as several of the children were removed prior to the period at which consecutive paralysis usually occurs, and others died before that period arrived." M. Roger believes that the proportion of these cases is about a fourth or a third.

The contrast between the frequency of these secondary paralyses after diphtheria, and their scarcity after other diseases, is striking. Thus, in 1860, among 61 cases of angina simplex, 12 of typhoid fever, 33 of rubeola, 12 of scarlatina, 4 of variola, and 24 of pneumonia, not one instance of secondary paralysis occurred; and the experience of M. Blache coincided with this.

Of 40 cases of diphtheritic paralysis which came under the care of M. Roger, 21 were females and 17 males, and the most frequent ages at which the paralysis appeared was from four to six years.

In almost all cases the paralysis commenced at the pharynx and velum palati, as exhibited by the nasal twang and dysphagia. The establishment of a relationship between its occurrence and the gravity of the primary disease is not easy, although it would seem to be a proof of a greater amount of blood-poisoning. But in fact, *it is in the milder cases that the paralyses are found to be of the most frequent occurrence*; but this may be owing to the rapidity with which death usually occurs in diphtheria. As to the relationship of paralysis to albuminuria, often met with in diphtheria, M. Roger has not sufficiently examined the point beyond being able to state that albuminuria is at all events not an essential concomitant. The usual appearance of the paralysis is from the fourth to the eighth day, but sometimes dysphagia is observed from the beginning, while in others these secondary symptoms occur much later. Their mean duration is about a month. As a general rule, the prognosis is not unfavorable, although in exceptional cases death has resulted from paralysis of the respiratory muscles, or sudden suffocation. For treatment, M. Roger recommends

especially tonics, iron, sulphurous preparations, and the application of electricity.

7. A few years, ago M. Bouchut proposed the excision of the tonsils as a means of treating the early stages of diphtheria, regarding the disease as at first a local one, which may be destroyed *in situ*, but which, left to itself, would give rise to a secondary infection of the economy.

Several practitioners have followed out this recommendation with good success, and now M. Paillot communicates the particulars of three cases occurring during a severe epidemic which ravaged the commune of Noyers in 1860, and in which he performed the excision with successful results. The tonsils were covered with false membranes, as were in one of the cases the whole of the pharynx and velum, but on the extirpation of the tonsils the false membranes ceased to be reproduced.

8. M. Loiseau, of Montmartre, who has acquired a sort of celebrity in the subject of throat affections, still persists in considering (contrary to the conclusions of a committee appointed to investigate the subject) the local application of tannin to the fauces as a means of destroying the specificity or virulent principle of diphtheria, by arresting its action locally, and hindering its spreading to the larynx. "Twenty years' experience," he says, "authorizes me to adopt the following preventive method:" This method consists in gargling the throat as soon as the slightest uneasiness is felt, during epidemic periods, with a watery solution of tannin, say every quarter of an hour, occasionally swallowing a little, to be sure of reaching every part of the throat. Should this not produce the desired result, an alcoholic solution is employed, administered in tea-spoonful doses. If pain continues, one part of chloroform is added to ten parts of the alcoholic liquor and six to eight parts of tannin. M. Loiseau also employs an ethereal solution, and affirms that it is very rarely that prompt amelioration is not produced by this treatment, at least when the angina does not depend on an eruptive fever, such as variola or scarlatina.

9. Before leaving this subject, let me add the testimony of Dr. Botte on the beneficial effects of local applications in the form of cauterizations in diphtheria. The doctor has certainly met with most astonishing success, as shown by the following statements: Among 129 cases of diphtheria of similar nature and appearance treated by him, he was *not allowed* to cauterize the throat in 16. Of these 15 died. Of the 113 cauterized, only 7 died; 1 of scarlatina, 2 of anasarca after scarlatina, and 4 by the extension of the disease into the

larynx. The former three ought, perhaps, to be excluded from the statistics of the disease. Among 110 cases, therefore, there were only four in which the cauterizations have not destroyed the false membranes, or prevented their extension into the larynx.

M. Botte cauterizes not only the diphtheritic spots, but the whole posterior fauces, with a sponge dipped in a strong solution of nitrate of silver, and applied three to five times daily; continuing the applications until symptoms of resolution, such as partial detachment of membranes, expectoration, &c., occur.

The treatment here so highly lauded by M. Botte is certainly worthy of trial, both from its rationality and its facility of execution, and because it enables us to measure its effects by inspection. That the cauterizations are locally beneficial, can, indeed, hardly longer be open to doubt. Whether their usefulness is limited to the local phenomenon, or, by destroying the local affection, prevents its spreading and infecting the system with the peculiar poison, remains to be ascertained by further observation.

10. M. Rigodin, acting upon the experiments of Messrs. Dumas and Bernard, who have demonstrated that the presence of sugar in the animal economy is indispensable to the continuance of life, believes it rational to employ sugar in diabetes, inasmuch as patients suffering from the disease lose it in such enormous quantities. "In depriving them of sugar and feculæ we see them growing worse, for they have need thereof to supply the continual loss."

In accordance with these doctrines, M. Rigodin supports his diabetic patients upon a diet in which sugar forms an important element. At the same time he advises the use of Vichy water, so that his cases, in which there has been a remarkable amelioration, are not conclusive.

11. Drs. Miller and Holmes lately reported to the Berkshire Medical Society a case of diabetes in a man 72 years old, and of three years' standing, which was cured by sweet cider. Dr. F. Childs brought additional testimony to the cure of diabetis mell. by the use of cider.

12. Mons. Boudin read a paper before the French Academy of Medicine on this subject, summing up with the following conclusions:

1. The number of dogs in Europe may be estimated at more than twelve millions, and the price of their maintenance at more than half a million; and the number of persons that become victims of hydrophobia inoculation as several hundred.

2. In the vast majority of cases, the disease is propagated by wounds from the bite of mad animals; under some circumstances it ap-

pears to be equally transmissible by a simple licking of the skin, more or less abraded.

3. Among the innumerable papers published upon this subject, we have not met a single fact sufficient to constitute scientific proof of the existence of spontaneous hydrophobia.

4. Even if the spontaneous production of the disease could be demonstrated, its occurrence must be so extremely rare, as to be hardly deserving of notice in the establishment of rules of sanitary police.

5. The ancient hypothesis, renewed in latter times, that the disease is to be attributed, in the dog, to the non-gratification of the sexual instincts, is entirely untenable.

6. The influence attributed to temperature and moisture of the atmosphere upon the frequency of hydrophobia is contrary to facts.

7. The pretended contagious (epizootic) rabies described by authors are nothing more than multiplied cases of communicated rabies; and the word epizooty should be struck from the scientific vocabulary.

8. Our science possesses no positive knowledge regarding the limitation of the period of incubation in the human subject; and while it may last seven months in the dog, it lasts  $14\frac{1}{2}$  in the horse.

9. There exists no sign truly pathognomonic of rabies in the dog. Hydrophobia, so called, seems to be entirely absent in the mad dog; the peculiar howl seems to be of much value in a diagnostic point of view.

10. Science possesses nothing certain concerning the innocuousness or innocuousness of the flesh of mad animals, as aliment, or of the milk of cows or goats bitten by enraged animals.

As regards measures of public hygiene and sanitary regulations:

1. Rabies has the effect of diminishing the number of dogs, and consequently the chances of its occurrences in man or beast.

2. It may manifest itself during the whole year, and the animals should be under surveillance at all seasons; consequently, they should never be allowed to go unmuzzled.

3. Experience having shown the frequency of wounds from muzzled dogs—20 times in 150—the manner and kind of muzzling should be prescribed by public authority.

4. Dogs bitten by animals either mad or suspected, if not at once killed, should be sequestered for a time at least equal to the maximum period of incubation.

It were very much to be wished that our public authorities were conversant with the above points, so that measures equal to the ends

proposed be taken. There is a horrid degree of recklessness exhibited in our city, and probably in the greater part of the country, in this regard. The most savage-looking animals are only too often allowed the fullest liberty, and it is only to be wondered at that the public is not oftener punished than is actually the case.

13. It has long been the impression among scientific men, strengthened not seldom to a moral conviction, that intermarriage among relatives is injurious to the race, and particularly pernicious to the direct offspring. But although the impression has existed, it had never been based upon scientifically ascertained facts and data, and consequently carried no scientific weight. And the attention of the physician and philanthropist is particularly drawn to the facts hereinafter stated, because the mind of the public in general is so averse to regard, much less to believe, in the unfortunate results of consanguineous alliances; on the contrary, they suppose that not only does it present no disadvantages, but that it is absolutely desirable, provided that the contracting parties are not subject to hereditary diseases, or better still, are endowed with superior mental or physical qualities; and only when the parties are affected with transmissible diseases, are these marriages hurtful, the intensity of the disease increasing not by simple addition, but by a sort of arithmetical or even geometrical progression. "Such, however, is not the language of facts, which show that in pure consanguinity, isolated from all circumstances of hereditary disease, resides, *ipso facto*, a principle of organic vitiation."

In support of this statement, Dr. Duvay relates a case of a family belonging to the South of France who had six children, two sons and four daughters; all six attained a pretty advanced age and all married; three married cousins-german—the other three married strangers. The annexed table arranges them in two categories, comparing the number of children each had with the number of children who died young.

1. Marriages between relations.	No. of Children.	Of which died young.
Miss M. A.,.....	11 .....	11
Mr. A.....	8 .....	6
Miss C.,.....	5 .....	3
	<hr/> 24	<hr/> 20
2. Marriages with strangers.	No. of Children.	Of which died young.
Mr. V.,.....	6 .....	2
Miss A.,.....	7 .....	0
Miss L.,.....	6 .....	1
	<hr/> 19	<hr/> 3



It should be remarked that the three members of this family who lost the most children were not more delicate than the others, as might have been supposed, had they been the two youngest of the family; they occupied the places, 1—3—6. The eleven children of M. A. all died of hydrocephalus at a very early age; one alone attained 14 years. The six children which Mr. A. lost also died very young; the survivors are delicate. Of the three children lost by Miss C., one died at the age of 15 days; a second, though delicate, attained the age of three years; the third died when 12 years old, of inflammation of the brain and its membranes.

A similar fact has been communicated to the author, of a merchant in good health, who in 1809 married his niece, a robust and healthy girl. Eight children were the fruit of the marriage; of these seven died before the age of four years, of convulsions or hydrocephalus; the only survivor is a daughter, now 33 years old, who is very delicate, and whom I have been attending during several years, with the view of moderating the severity of a psoriasis diffusa, which has existed from her earliest infancy, and the existence of which perhaps saved her from the fate of her brothers and sisters.

Congenital deaf-and-dumbness is one of the most frequent results of the marriage of relatives. Dr. Duvay has recently had six opportunities of noticing the coincidence: one of these is the following: A handsome, well-made woman called on me with her little boy three years old, who had been deaf and dumb from birth; she was afraid that a similar misfortune would affect another son, four months old, who was completely deaf.

In answer to my inquiries, she stated that none of her relatives had been deaf, but that she had married her uncle. In another family of eight, where the parents were cousins-german, five were either deaf from birth or became so afterwards, and the other three were subjects of various bodily and mental deformities.

Dr. Chazarain, from his connection for several years with the Deaf and Dumb Institution of Bordeaux, had peculiar advantages for investigating this point, the results of which he laid before the Faculty of Medicine of Montpellier in a thesis.

Out of 39 boys in the Institute deaf and dumb from birth, there were the offspring of relatives .....	6
Among whom, one had .....	2 brothers deaf and dumb.
One .....	3 " "
Total .....	11

Of 27 girls, deaf and dumb from birth, 9 were the offspring of relatives. Of this number, 6 had among them 7 brothers or sisters affected with the same infirmity; making in all 16.

At present France possesses 29,512 deaf and dumb individuals. According to their distribution in the different localities, it appears that the greatest number is found in mountainous departments, where means of communication are difficult. The department of Ariège has the highest figure, 161 to 100,000 inhabitants. In this department the marriages among relatives are so frequent, that the priests have several times applied to the Faculty of Medicine of Montpellier to issue an authoritative reprehension of such unions.

Anomalies of organization and deformities are also the result of such intermarriages. Thus, there is at present in the Hôtel Dieu a patient with a peculiar deformity of both feet. On the left side the great-toe is united to the second; the third and fourth are united in the same way; the fifth is isolated. All the phalanges are perfect; the union being only by the soft parts. On the right side same as the left, except that the phalanges have partly disappeared. The parents of this man were first cousins.

Other cases are cited, but the most remarkable fact is, that such malformation may become endemic, as it were; thus it is stated to Prof. Davay, by Dr. Polton, that sexdigitation affects an entire population, as seen and verified by him.

"There is in the department of the Isère a little village called Izeaux, isolated, lost, so to speak, in the middle of a little-cultivated, almost barren plain. The roads in this inhospitable district being bad, communication with a distance was formerly almost impracticable. The inhabitants of Izeaux, nearly abandoned to themselves, having little intercourse with the surrounding population, constantly contracted marriages among themselves, and therefore, frequently with their own relatives. About the end of last century, as the result of this state of things, there has been engendered and kept up a singular monstrosity, with which thirty-five or forty years ago almost the whole population was affected. In this village men and women had on their hands a sixth finger, and on their feet a sixth toe." In 1829, and again, 1836, when Dr. Polton observed this singular phenomenon, this deformity had in some of them become reduced to a rudimentary condition, and in others only a large tubercle, in the centre of which was a hard, osseous substance, and a species of nail, more or less formed, terminated this tubercle, which was fixed to the external lateral aspect of the trunk.

Since some years, however, the place having become less isolated, the roads better, and communication made easier, in short, intermarriage with strangers having occurred, the deformity has almost entirely disappeared from the village. In 1847, Prof. Duvay saw a gentleman, settled in Lyons, who, subject to this deformity, had married a lady in Lyons. They had four children, but all free from the deformity.

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*The Italian Campaign of 1859. Medico-Chirurgical Letters from General Head-Quarters.* By Dr. A. BERTHERAND, Principal Medical Officer of the First Class, etc., etc. Translated for the AMERICAN MEDICAL MONTHLY.

#### LETTER II.

Alexandria—The Wounded of Montebello—The Division Hospital—Marengo—Vercelli—Novara—Magenta, and the Ambulance of San-Martino.

TO PROFESSOR FRISON:

*My Dear Colleague*—Since my first letter to our colleague and friend, Pécholier, (so abruptly brought to a close,) great events have succeeded each other with such rapidity that I should in vain demand of my memory, oppressed by so many exciting episodes, a history, in the slightest degree connected, of the last fortnight. Since, too, the telegraph and the official *Monitor* have long since transmitted to you the military bulletins of the army, I felicitate myself on being able to pass over, almost in silence, strategic details already known to you, and by no means familiar to my pen, that I may confine myself exclusively to the medico-chirurgical side of the campaign.

The iron road is encumbered with military trains, which interfere with each other in every possible way, and it takes us six mortal hours of cars to go from the *Marble City* to the *City of Straw*; for by this latter name do the natives call the formidable rampart, and the flat and insignificant *City of Alexandria*.

Along the approaches to its gates, the inundation, but just subsided, the trees felled and upturned in the *cheveaux de frise*, roads destroyed, bridges bastioned, cannons' mouths overtopping the shoulders of the redoubts, all announce the proximity of war.

Within the walls the different Corps of the Guard form successively under the eyes of the Emperor. Through the midst of this animated crowd, each hour increasing, there pass from time to time vehicles or litters, before which the tumult of voices is stilled, and heads are uncovered; respect, honor, to the wounded of *Voghara*!

Different arrivals from the battle-field of Montebello have already brought to Alexandria more wounded than the Division Hospital can hold. In order to supply this deficiency as far as possible, temporary branches have been established at *San-Martha*, *Santa-Chiara*, the *Seminary*, and the *National College*. But these places, for the most part unhealthy, and destitute of both furniture and assistants, possess neither pharmacy, kitchen, nor stores.

They are proceeding with energy in founding the first French hospital in the spacious buildings of the *San-Stephano* barracks, and our colleague, M. Cazalas, having the charge at Alexandria, as has M. Bondin at Genoa, of the general direction of the hospital arrangements, should bethink him of new resources for the wounded, the sick, and the convalescent.

Actuated by sentiments of extreme courtesy and good-fellowship, the Medical Inspector-in-Chief, Baron H. Larrey, has preferred leaving to our Piedmontese colleagues the care of directing the surgical treatment of the wounded French who are mingled in the wards of the Division Hospital with wounded Sardinians and Austrians—allies and enemies of the night before, conquerors and prisoners of yesterday, all to-day confounded in one and the same misfortune; equals in view of the indefeasible rights of suffering to the consolations of science and of charity. Beside the regular morning and evening visits of the surgeons in attendance, on which a great number of us made it our duty to attend, the wards have been made, the whole day long, the shrine of a devoted and incessant pilgrimage. MM. Lhonneur, Gaujot, Lecomte, and Jacquemin, of the General Head-Quarters, attend to the dressings at the Seminary. Surgeon-Major Delassus shares with the Medical Staff of the Second Division of the Guard the duties of Santa-Chiara, and another of the branch hospitals.

Several amputations have already been performed at the Sardinian Military Hospital, by the Division Surgeon, Cortese, and the young and skillful Professor of Pavia, M. Insani, whose patriotism has constrained him to leave the disquisitions of the amphitheatre for the labors of the ambulance. In the service of M. Cortese, an experienced and ingenious practitioner, we noticed curved splints of very thin tin, for the fixation of fractured limbs. To those designed for the lower extremities a sole is soldered so as to support the foot, and at the level of the heel a hole is left for the escape of pus in compound fractures.

Great lightness and malleability appeared to characterize these apparatus, and we have had a number of them put together, desirous of

experimenting upon their value as compared with the wire splints of Bonneh.

Among the most interesting injuries observed in the same establishment, I shall notice more particularly two balls imbedded in the frontal bone, with fracture of the vitreous lamella, and perforation of the *dura mater*. The conical form of the projectiles in this class of cases renders their extraction the more difficult, from the fact that the foreign body, having penetrated with its point—in virtue of the peculiar nature of its flight, to which I propose to return later—necessarily changes its direction in consequence of the resistance which it meets. It may happen then that instead of its base, some portion of its circumference presents externally. In other words, the dimension of the surface accessible to the operator is no longer adapted to the diameter of the orifice of entrance. He must, therefore, with a spatula or elevator, pry, cut, or even bend the bullet, in order to render it capable of extraction; manœuvres as tedious as they are difficult. In the case of one of the wounds in question, the ball appeared as if rolled out by machinery; both patients succumbed within twenty-four hours.

Col. L., who received a gunshot wound of the right hand, on the outer side of the metacarpo-phalangeal articulation of the index, had the whole palmar surface of the four fingers ploughed by the bullet as far as the cubital border of the auricularis. In spite of the fracture of two phalanges, and the head of the second metacarpal bone, this wound, being subjected to continued cold irrigation, is doing well; everything leads us to hope that the injury sustained by the Colonel will not necessitate the amputation of the General's hand.

R. ———, a grenadier of the 98th Regiment of the Line, has had the left leg pierced by a ball to the depth of three fingers, outside of and below the knee. The fibula alone is divided; nevertheless, this injury, which might at first sight have been considered of slight importance, has suddenly assumed fearful proportions. In the space of four hours the limb has doubled its volume; the skin, cold, tense, and insensible, is livid, and marbled here and there with violet spots; a slight *sui generis* odor exhales from the wounds. Must we attribute this threatening strangulation to the action of the aponeuroses, or rather to a deep-seated extravasation of blood? MM. Larrey, Méry, and myself, are of the opinion that it is advisable to try, as the last chance of preservation, two long, deep incisions on the sides of the limb, the elevation of the foot, and frictions with belladonna. But, vain hope! the sphacelus is fully established, and amputation has become necessary. Should we not have done well to have

relieved all constriction by immediate incision in a case involving a muscular and dense aponeurotic region traversed by important vessels? Is not this just one of those cases which protest against the too exclusive abandonment of the primitive *débridement*; of that methodical, reasonable *débridement*, which throws light on difficult cases, and anticipates serious complications, but the true indications for which I am forced to re-establish elsewhere?

What singular, and, at times, deceptive appearances do we have produced by the passage of balls through the body, and how many new problems do they daily present! An officer displays three wounds, placed one above another, perpendicularly, to the fold of the left groin; two above Poupart's ligament, and one below it. His own conviction is that he received three shots. But as far as the abdomen is concerned, we have no symptom of serious injury; neither the finger nor the sound can penetrate it. Still the skin is extensively and deeply destroyed; they are certainly not simple contusions. But M. X. is very fat; at the moment when the bullet struck him, he was much bent forward. The projectile, then, must have pierced a thick fold of abdominal integument before entering the upper part of the thigh, in which it buried itself. On placing him in the supposed position, the orifices immediately take their respective situations so exactly, that my index finger runs through them with the greatest ease.

An arterial hæmorrhage, (probably of the deep femoral,) produced, without the knowledge of the wounded man, by an incautious movement, carried off, in the course of a few hours, on the evening of the 29th, the brave Commandant, De Laeretelle, one of the young celebrities of the Army of Africa.

The loss of blood was already too great for hope, when M. Cortese endeavored to master it by digital compression, and an instrument which deserves to be better known in France—the compressor of Sognoroni. An opportunity of speaking of it again will doubtless present itself.

I have taken advantage of a hurried interval between two hospital visits, to run out to Marengo. A landed proprietor of Alexandria, a millionaire, they say, has obtained possession of the historic house where the conquering General passed the night before the battle which immortalized the spot. The farm-house is to-day a villa, medleyed with frescoes within and without; thick masses of foliage cast their shadows on the green lawns under which sleep the remains of heroes. In the court of honor stands the statue of Napoleon. Farther on, in the Park, you find the white marble bust of Desaix, by Franceschi.

At the turn of a path, between two witch-elms, a small cupola, supported by elegant little columns, entombs the human bones which the plough and the mattock have exhumed from this Campo-Santo of French valor.

Having left Alexandria at noon on the 30th, for Vercelli, we learn on the way of the victory of the Piedmontese Army at Palestro. Vercelli possesses a very fine civil hospital, and two temporary military hospitals. The first and larger of the two latter, having a capacity for five hundred patients, has been very conveniently located in the Seminary buildings. Numerous arrivals of Sardinian ambulances take place during the night, and on the morning of the 31st we accompany the Surgeon-in-Chief, Baron Larrey, on his visit to the wounded of the night before. We are received by MM. Bima and Larghi and the Surgeon-in-Chief of the Piedmontese Army, Doctor Commisetti, already well known to our colleagues from his courteous and important assistance during the Crimean war. The critical labors of M. Ollier, in France, have done full justice to Dr. Larghi for the part which belongs to him on the question of the sub-periosteal removal of bones. Returning to the doctrines which prevailed anteriorly to Ambrose Paré, M. Larghi proclaims himself very favorable to the cauterization of gunshot wounds. He passes the nitrate of silver freely along the sinuous courses of balls, over surfaces which have been crushed by projectiles, and even to the flaps of an amputated stump. The experience acquired in the treatment of the wounded Piedmontese in 1848 and 1849, has sanctioned this practice in his eyes. By its means he avoids surely, he says, purulent infection, hospital gangrene, and tetanus. Deterision being thus rendered easier, cicatrization is in the same degree accelerated. If the observations which Dr. Larghi cannot fail to make and to publish, confirm this view, we shall say once more, *multa renascentur quæ jam cecidere*. . . . .

The large buildings of the National College and the cavalry barracks of Vercelli will furnish excellent refuges for our wounded. On receiving the favorable report of our visit to these places, made in company with the sub-Commissary, De Lavalette, and the principal apothecary, M. Demortain, the Surgeon-in-Chief proposed to the Commissary-General to open a French military hospital in the College immediately. Surgeon-Major Baizeau, and Assistant Surgeon-Major Lhonneur, temporarily detached from the ambulance department, will initiate the medical service.

The reprisals attempted by the Austrians on the 31st of June, to avenge the check at Palestro, and the furious charge of the Third



Zouaves on the enemy's batteries, sent numbers of wounded to the Vercelli Seminary all that night. We had begun to visit them on the morning of July 1st, when the order to leave for Novara was unexpectedly brought us.

The Advance Guard of the Fourth Corps, on arriving before this latter place, drew the last fires of the flying Austrians. We had here a dozen or more wounded men—cases of sufficient importance to demand an amputation of the thigh, of the leg, and of the arm. The two first were performed, I think, by our colleague, Dr. Fenin, at the *Maggiore* Hospital, in the city.

The grand Charity Hospital of Novara, established on a large scale for a city whose population does not exceed seventeen thousand souls, (having from eight hundred to a thousand beds,) is cited, with just cause, as one of the most remarkable benevolent institutions in Italy. Its annual revenues, which exceed 500,000 francs, account for the luxury and the comfort of its arrangements. The well-known M. Omar is its administrator. Among its physicians we would notice Prof. Pagano, a skillful operator and accoucheur, and a lithotomist of considerable reputation.

The branch hospital of St. Julien, the National College, and the Perrone barracks, capable by itself of accommodating one thousand five hundred wounded, assure efficient means for emptying the ambulances at Novara, and the moment is not distant when we shall make proof of their necessity.

On the news of the brilliant actions of Turbigo, Buffalora and Magenta, and the passage of the Ticino, about eight o'clock in the evening of June 4th, we proceed to the *Maggiore* Hospital to prepare for the reception of the wounded, who now begin to arrive. In less than half an hour the convalescents and the slightly wounded are transferred to the Perrone barracks, whence they will to-morrow be sent to Vercelli and Turin. Six hundred beds are thus placed at our disposal, while the hospital authorities, of whose immense resources we have already spoken, have prepared at Perrone beds, mattresses, litters, and bed-clothes, in anticipation of fresh arrivals. At eleven o'clock comes an order for the Ambulance Corps of the General Head-Quarters to appear on the field at the Bridge of Buffalora. I leave to MM. Douchez and Paulet, with the physicians of Novara, the care of the dressings, already commenced, and we take our departure.

The route is encumbered with caissons, artillerymen, cavalry, and wagons filled with the wounded or with stores, to such an extent, that it is not until four o'clock in the morning that we catch sight of the

head of the bridge on the right bank of the Ticino; indeed, we were obliged to avail ourselves of a cross-road in order not to be detained indefinitely on the way. At the distance of about five-eighths of a mile beyond the river, several Sardinian and French divisions are deployed in silence upon a broad, bare plain, the cannon in line and matches lighted. The Austrians had thrown up formidable works, which they do not even dream of disputing with us. The artillery growls in the distance, and the dark and solemn picture is not enlivened by the dim twilight, obscured by a rainy mist.

All night long the wounded have poured unceasingly into the R. R. Terminus of St. Martino, which has been transformed since last evening into an ambulance depot. Baron Larrey himself has presided over their reception, assisted by the ambulance service of the Third Corps, under the orders of the principal medical officer, M. Thomas; several of our colleagues connected with neighboring regiments have voluntarily come to rally around the Surgeon-in-Chief.

At five o'clock we relieved our brethren, whose strength was exhausted, though not their devotion. Hastily to visit the wounded, to appease their thirst and hunger, to readjust their bandages, to extract a few splinters and other foreign bodies, either unperceived or forgotten, this, in the presence of so much suffering to be assuaged, was necessarily the limit of our *ex tempore* assistance. What was to be done, with no other resources than those furnished by our caissons, in a place deserted and long subject to devastation, but to drain off the patients as fast as practicable to Novara? More than 1,400 men removed in this way in less than twenty-four hours, sufficiently indicates how the zeal of our ambulance service rose with the difficulties of the occasion.

During this interval, three capital operations were demanded most urgently by the wounded men themselves, their agonizing sufferings rendering the preservation of a shattered limb, and the prospect of a most painful transportation, longer insupportable. Dr. Quesnoy, of the Third Corps, was thus called upon to trim off the stump of an arm which had been carried away by a large projectile. M. P., a lieutenant in the Zouaves of the Guard, adjured me to cut off his right hand, through which a ball had passed obliquely, from the head of the second metacarpal, above and in front of the wrist-joint. The carpus and the lower extremity of the radius were absolutely pulverized; the palmar arches being divided, had already allowed a considerable loss of blood. I amputated the forearm by the circular operation, at the place of election. I also removed, by the circular operation, (manag-

ing to reserve an antero-external flap,) the thigh, above the condyles of the femur. The case was that of a corporal of the Second Regiment of Grenadiers of the Guard, who had received a penetrating wound of the right knee, with multiple fracture of the patella, and an immense extravasation of blood in the joint. Dr. Martinot, of Cordova, and the ambulance officers of the Head-Quarters, were kind enough to assist me in this operation.

In the evening, having made arrangements for the watch and the reception of ambulances until the next day, I proceeded to Novara to join the medical officers whom I had left the evening previous, and whom I found reinforced by the arrival of Surgeon-Major Baizeau. Our wounded had received the most sympathizing welcome from the enthusiastic inhabitants, and every attention which circumstances permitted from our Franco-Sardinian brethren. Four hundred of those less seriously wounded had gone to report at Turin, in the hospitals organized under the enlightened direction of the Surgeon-in-Chief, M. Salleron.

On again entering San-Martino, on the 6th of June, at an early hour I was brought to the side of an Austrian soldier, in whom a musket-ball had torn away a considerable portion of the posterior muscles of the left thigh, and produced a very comminuted fracture of the upper fourth of the femur. Gangrene already showed itself in the wound, and a formidable disarticulation seemed to be the only resource in his desperate condition. We were on the point of leaving, convinced of the absolute impossibility of transporting the unfortunate man; should we abandon him, without an attempt at aid, to an inevitable and cruel death? We thought not. The operation was performed on the spot, almost without loss of blood, and without syncope or other accident, and had been terminated for three hours, when the patient, worn out beforehand by fatigue, by the extremity of his sufferings, and it may be, too, by hunger, sank into a collapse, whence it was impossible to arouse him.

After the preceding recital, no one will certainly expect of us an analysis, however brief, of the surgical cases which we caught glimpses of, rather than observed, at the ambulance of San-Martino. Nevertheless, I will venture to give you the few following notes, penciled upon my memorandum-book:

B, a chasseur of the Sixteenth Battalion, struck in the right cervical region by a ball which has divided the sterno-cleido-mastoid at its middle, and has gone on from above downward to bury itself near the spinal column, where it cannot be reached by the sound. Paralysis

of the lower limbs was instantaneous; it has progressively attacked the trunk and the arms. Intelligence is perfect. He was carried in a carriage to Novara, where new attempts will be made to find the projectile.

M. M., a captain of the Eighty-Fifth Regiment of Infantry of the Line, has a gunshot wound of the epigastrium, going from a point opposite the gall-bladder, to the transverse apophysis of the tenth or eleventh dorsal vertebra, where I made an incision through the skin, and removed a ball very much altered in shape. The bile flows out in waves by the wound of entrance; all the wounded man's clothes are tinged of a characteristic saffron yellow. There was slight vomiting this morning after taking a little cold water. M. M. does not appear to suspect the danger of his situation. He has no fever, is constantly on foot, and has been going and coming ever since receiving the wound.


A grenadier of the Guard presents three wounds, situated nearly in a straight line; one scooped out like a furrow along the tendon of the great pectoral, one inside of this, and a third on the outer side of the front of the arm. This arrangement seems to indicate the passage of a single projectile, and such was the opinion of the surgeon who made the first dressing. But X. himself is convinced that he received two shots at the same moment. A more careful examination enables me to discover, very deep in the dorsal region, and arrested between two ribs, a conical ball somewhat bent, and covered by a piece of cloth; the ball had pierced the lung.

On the morning of the 5th I had the somewhat rare opportunity of observing quite a number of wounds from side-arms, in the persons of captured Austrian officers, whom the solicitude of the Emperor has recommended to our care. Among them was a colonel, pierced by several bayonet thrusts, two of which were in the abdomen. Another had received a thrust in the face, breaking five or six teeth. I was led to remark that the point of the bayonet, purposely directed towards the breast, was often arrested by the combined strength and elasticity of the costal arches. Fourteen have died at San-Martino during the last twenty-four hours, of wounds of the head and abdomen, both of which are always serious; the latter most dangerous of all.

Towards one o'clock in the afternoon of June 6th, we cross the Ticino on a bridge of boats on our way to Magenta. From the Custom-House of Buffalora to our halting-place, houses riddled with bullets, trees torn by grape-shot, the earth here and there piled up with fresh

graves, shreds of uniforms dangling from the branches, scattered fragments of sabres and guns, at intervals the plaintive neigh of a dying horse, the corpse of an Austrian lying forgotten under a bush—all serve to mark out the field of battle. The inhabitants of Magenta have scarce awakened from the terror which two days of bloody fighting have thrown over its shattered and disjointed walls.

In the cellars and most secret nooks of this desolate town, lie cowering nearly a thousand Austrians, most of them wounded, stifling their groans and forgetting their hunger in the dread which Austrian falsehood had given them of our cruelty! It is our first care to seek out these unhappy creatures, and to demonstrate to them by our kindness how the humanity of France avenges itself for unworthy calumnies! That same evening they were all carried by rail to Milan.

And from Milan, my dear colleague, I shall date this letter. Much would I have liked to tell you my impressions of the phrensied reception of the great city, the transports of joy which burst forth at every step from the people, drunk with our victories and its own deliverance. But excitement, even that of sharing a great joy, brings fatigue; and besides, I dread for you that of reading a letter already out of measure prolix, and hasten to pray you to accept, with my excuses, the expression of my fraternal and affectionate sentiments. 

MILAN, June 8th, 1859.

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## REVIEWS AND BIBLIOGRAPHY.

*A System of Surgery; Pathological, Diagnostic, Therapeutic and Operative.* By SAMUEL D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia; Surgeon to the Philadelphia Hospital; Member of the Imperial Royal Medical Society of Vienna, etc., etc. Illustrated by 1,227 Engravings. Second Edition, much enlarged and carefully revised. In two volumes. Philadelphia: Blanchard & Lea. 1862. 8vo. Vol. I., pp. 1,062; Vol. II., pp. 1,134.

In the MONTHLY for December, 1859, there appeared a notice of Gross's Surgery from the pen of the then senior Editor. A new edition gives us also the opportunity to call the attention of our readers to the work.

It has been characterized by the representative press and by individual surgeons of the highest eminence, both at home and abroad,

as "*the best systematic work on surgery ever published in the English language;*" and that the profession at large have given substantial proofs of their agreement to this verdict, is sufficiently evident from the facts that translations into three European languages have been called for, and that so shortly after its first appearance, and at a time most unfavorable to literary "enterprise," the Philadelphia publishers have found it pay to issue a "second edition, much enlarged and carefully revised." To the honor of the author be it said, that he has been very industrious in the revision, and that far from being a stereotyped reprint with changed title-page, (a dodge so often perpetrated on the unsuspecting public,) the volumes before us have actually been entirely "set up" anew. Dr. Gross in his Preface truthfully states: "In preparing for the press a new edition of this work, I have carefully revised every chapter, introduced a large amount of new matter, and added nearly three hundred illustrations, a portion of them expressly engraved for its pages. The subject of gunshot wounds, invested at this moment with such a fearful interest on this Continent, has received more than ordinary attention. Notwithstanding these additions, it will be seen that the volumes, in consequence of the employment of a smaller type, are somewhat less bulky than the original ones. The general arrangement of the work is the same as in the first edition; and the new matter will be found to be essentially of a practical nature." Owing to the extensiveness of the work, and the fact of its contents having already been presented to our readers, we will not follow the author step by step, but shall mainly limit our remarks to generalities or to such points as have arrested our attention more particularly, or in which the present edition is different from the former.

In the portion of the work entitled *General Surgery*, occupying about 550 pages of the first volume, we do not find any material changes, except such as have been suggested by reviewers of the first edition: and, here, we may at once state that the Professor deserves great credit for the spirit in which he has evidently received, and the laborious solicitude with which he seems to have endeavored to turn to the perfection of his work the criticisms from all sources. Many things said about it in the journals, American and foreign, having incidentally come to our notice while traveling in Europe, as well as from our former journalistic connections here, we feel bound to state that every objection that has been raised, every fault that has been found, whether referring to doctrine or style, whether of moment or but trifling, appears to have received careful consideration at the au-

thor's hands. In a few particulars of minor account, he has given up his previous notions, but doctrinal peculiarities, operative hobbies and occasional injustice, (especially to individual *American* practitioners,) and strong prejudices from exaggerated ideas of the value of his own opinion to the exclusion of that of others, are to the discriminating critic, still, painfully manifest: marring, to some extent, the admiration which every reader cannot help but feel for the author as a learned, judicious, experienced and conscientious teacher and practitioner. The carelessness of style so much complained of in the first edition has from many pages entirely disappeared, and if not a model of elegance of diction, the language throughout both volumes is now generally grammatically correct, plain and impressive. To be sure it would not be at all difficult to hunt up many passages militating against this favorable judgment, but it should be recollected that it were strange indeed if, in twenty-two hundred closely-printed pages of didactic practical matter, there were not some inaccuracies and imperfections of manner. To allow the reader to decide for himself how far these faults are impardonable, we will cite two or three instances. The italics are of course ours. Speaking of the pain of scirrhus, our author says: "It may be steady and persistent, but more generally it is intermittent, coming and going apparently as *whim or caprice may dictate*."—P. 263. "It may be stated as a general rule, that complicated fractures of the lower extremity are more dangerous and difficult of management than those of the superior, as well as *more apt to be followed by* distortion and permanent *lameness*."—P. 942. "In one instance, I knew it [fracture of the clavicle] to be produced by the kick of a gun, *in shooting at a flock of pigeons*."—P. 970. These are selected from a number found by opening the book at accidental places and reading carefully, or pointed out in the same manner by a friend; they really form a fair specimen; and if none who could not do better throughout the whole work, should dare to throw the first stone, the author would certainly be safe from reviewers on this score. We should also state, however, that the use of such forcedly Anglicized words as *burse*, *fistule*, etc., is still retained.

Appended to the author's disquisition on the intimate nature of inflammation, vol. i., p. 86, we now for the first time meet with a sprinkling of Virchow, although neither Virchow's positive observations nor his views and explanations can be said to have fairly penetrated, or to have been assimilated with, Gross's System.

As to treatment, blood-letting is still regarded "*the summum reme-*



dium." "If we formerly bled too much, too frequently, too copiously, and too indiscriminately, it is equally certain, at least to my mind, that the operation is not often enough resorted to at the present day. Many a deformed limb, blind eye, enlarged spleen, and crippled lung bear testimony, in every community, to the justice of this remark."—P. 88.

Our author does not yet feel himself warranted in expressing a positive opinion as to the relation of myeloid tumor to encephaloid or fibro-plastic growth.—P. 255.

Eleven pages are devoted to the general consideration of scrofula. "The affections which may be comprised under this term are pulmonary phthisis, chronic enlargement of the ganglions of the neck and other parts of the body, hip-joint disease, psoas, lumbar and chronic abscesses, Pott's disease of the spine, certain forms of follicular ulceration of the mucous membranes, arachnitis, otorrhoea, ozæna, ophthalmia, eczema, and ulceration of the bones. The fact is, the class of scrofulous maladies is almost endless, affecting as they do almost every part of the body, and assuming as they do almost every form of morbid action. Scrofula consists essentially in the deposition of a peculiar morbid product long known by the name of tubercle." It is well as a general rule, our author says a few pages further, to begin the treatment with some mild but efficient aperient, to clear out the bowels, and "improve the secretions." The latter injunction we find quite frequently repeated throughout both volumes. How many of our readers know what exactly is thereby meant? We have personal reasons for knowing that Dr. Gross means R. calomel, or blue mass, and colocynth, a big dose. We have looked in vain for an explanation of the *modus operandi*. Of the lancet, he here says, it "must be employed with the greatest care; but I am satisfied that it is often of immense benefit in arresting the morbid action, and that it has fallen into too much neglect in the treatment of scrofulous diseases."—P. 293.

Of the healing of wounds by Macartney's *immediate union* he still expresses himself—and we by no means disagree with him—"I am satisfied that it is impossible for any wound, however induced, situated, or treated, to heal by immediate union, or without the intervention of inflammation and effusion of lymph."—P. 308.

The whole chapter on wounds is a complete and well-considered one; and Gunshot wounds are, as already indicated, treated of with unusually great care. The author has been on the battle-field, or at least in the military hospitals after "Bull Run;" but we must regret

that he has not also availed himself of the most recent European experience. In the "author's forceps" for extracting bullets (p. 336) we cannot see anything particularly original; [a remark that might be repeated of several instruments delineated in various parts of the work as "the author's."]

The nine pages headed "Effects of Injuries upon the Nervous System," briefly considering, in two sections, prostration, collapse, or shock; and traumatic delirium, are well condensed, and valuable to the advanced student.

The next chapter is devoted to Syphilis, (p. 381-445.) Not only has the author, from his eminent position as practitioner and public teacher, doubtless had much experience, but he may have bestowed upon the discussion of this subject a great deal of time, and care, and labor, for he certainly enters upon it thoroughly and in detail. Yet, to be just, we must say that this chapter, with the exception, perhaps, of a few redeeming practical hints, is exceedingly unsatisfactory. At some points not at all up to, at others going beyond, the present state of syphilidological knowledge, it irresistibly impresses us with the idea of a "patched-up affair," if we may be allowed to use such an expression. To review this chapter in detail, would require more space than we dare command, after our introductory declarations; but we cannot satisfy ourselves without selecting from a great number at least two or three gross (we intend neither a stale pun nor any disrespect) statements, and submitting them to the honored author's consideration.

"It has been conclusively shown that if a chancre, even if it pertain to the indurated variety, be cured or removed before the end of the fifth day from the time of the inoculation, there is, as a general rule, no risk whatever of systemic contamination."—P. 407.

"[The time at which a female with secondary symptoms may communicate the poison to her offspring cannot be accurately stated. The probability is that it is very short. This is proved by the circumstance that such a woman frequently aborts within a few months after conception, evidently in consequence of the deleterious effects of the virus upon the fœtus.] I suppose that the contamination is coeval with conception, occurring at the moment of the commingling of the two seminal fluids; for if it be assumed, as we have a right to do from the facts of the case, that the male can communicate the poison in this manner, why should a similar faculty not be ascribed to the female? She, too, furnishes a fecundating substance—a seminal liquor—which can no more escape contamination when her system is

affected with secondary syphilis, than the seminal fluid of the male."—P. 440.

"[The most important internal remedy is mercury, and it is here (in the treatment of infantile syphilis) that this article often displays its effects to the greatest advantage in neutralizing the specific virus. If any one should doubt the efficacy of this medicine, as an antisymphilitic agent, his skepticism will soon vanish if he will take the trouble to watch the progress of the treatment and the good results that will follow it. If it is not positively a specific, it approaches as nearly this property in this disease as anything well can, quinine in intermittent fever hardly excepted. The form of exhibition is the bichloride, in doses varying from the fortieth to the fiftieth of a grain three times in the twenty-four hours, dissolved in distilled water, or, when there is need of a tonic, in a few drops of Huxham's tincture of bark. This should be steadily continued, with now and then a few days' intermission, for a number of weeks, not only until all disease is apparently gone, but for a considerable period after; and it will be well, for the sake of the more complete eradication of the poison, to recur to the remedy occasionally until the child is several years of age.] When the disease proves obstinate, the bichloride may generally be advantageously conjoined with the iodide of potassium, from the fourth to the eighth of a grain being given with each dose of the salt, according to the age of the child."—P. 444.

To do no injustice to the author, we have quoted so much of the context; and as to the last sentence, to show that we are not hypercritical, we will add, that every one of five students, and several practitioners of not less than ordinary intelligence whom we desired to read the whole paragraph attentively, averred it to be Prof. Gross's recommendation to give  $\frac{1}{4}$  to  $\frac{1}{8}$  grain bichloride of mercury with each dose of the iodide of potassium, according to the age of the child, (the precise dose of the iodide, they said, not being stated.)

In regard to the value of curative syphilization—a mode of treatment that he has never practiced, nor ever seen—it is of course impossible for the author to form a definite estimate. His objection, however, that it is "exceedingly filthy and disgusting," is a very poor argument against it. We, for our part, regard mercurial inunction just as filthy and disgusting at least.

The chapter immediately following that on Syphilis is on "General Diagnosis;" a chapter well conceived, and still better executed.

Let us next turn to *Special Surgery*, which occupies the latter

portion of the first, and, with the Index, the whole of the second volume.

(Will be concluded in next number.)

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*Health: Five Lay Sermons to Working People.* By JOHN BROWN, M.D., Author of "Rab and his Friends," etc. New York: Robert Carter & Brothers, No. 530 Broadway. 1862.


To no one who has read "Rab and his Friends" will it be necessary to recommend this little volume. Any who have not, we advise to procure either, and we are certain that they will want the other. The author's distinguishing characteristic is a broad humanitarianism, not, as is too often the case, degenerating into a worship of the creature at the expense of the veneration due the Creator, but tempered with, and ennobled by, the deepest religious feeling and reverence for the Supreme Ruler of events. The creature is excellent, and to be admired, and nurtured, and cared for, because it is the master-piece of the Creator's art.

The subjects of the five sermons are as follows: I. The Doctor—Our Duties to him; II. His Duties to Us; III. Children, and How to Guide them; IV. Health; V. Medical Odds and Ends.

Three of them, he tells us in the preface, "were written for and (shall I say?) preached some years ago, in one of the earliest missionary stations in Edinburgh," and delivered thus orally they must have reached most effectively the class whom they are now especially intended to benefit, but whom, in their present form, we should be inclined to think they would, as a rule, miss. They will, however, be not less useful among another class, for the members of which many of their wholesome teachings will be quite as serviceable as for their poorer brethren. The caution against *fast living*, for instance, found in the preface, taken in no bad sense, is most pertinent to our own countrymen; perhaps to none more than to our own profession in this country. He says well, that "a man who lives to be seventy, and has ten children, and (say) five-and-twenty grandchildren, is of more worth to the State than three men who die at thirty, and, it is to be hoped, unmarried." Nor is it the poor man alone who needs to be taught his duties to the Doctor, or that gratitude is dearer to him than his fee, or that "*sleep is the food of the brain*," or that "the great thing for the lungs is plenty of fresh air and plenty of room to play in;" or that "all violent passions and irregularities of living *damage* the

heart," "out of which are the issues of life." All through the book, which is written in a delightfully simple, and yet vigorous style, we see the same large, warm heart, which was so full of sympathy for that gentle, patient, sweet "Auld Ailie," of whose painful end he has given so touching an account in "Rab and his Friends."

As might be expected from a man of sound common sense, he "is for beards, out and out, because he thinks the Maker of the beard was, and is;" and is honestly indignant at the encroachments of the tyrant Fashion on our health and comfort, and especially at its inexorable, torturing, deforming, iron grasp on our poor feet. To remedy this latter evil, he advises his hearers to "buy a sixpence worth of wisdom from Edmonston & Douglas," in "Why the Shoe Pinches," and have their shoes made accordingly. We feel that we cannot better close our brief notice of this delightful little book, than by giving our readers the same advice, slightly altered. Provide yourselves with boots made on "Dr. Plumer's Patent Lasts," and you will thank us for the recommendation. For although we are not disposed to agree with his dogma, that the transverse arch of the foot needs artificial bolstering up, the fundamental principle of the arch being, that it is self-supporting, and that pressure from above only strengthens, while pressure from below weakens, if it does not destroy it, still the contour of his sole conforms so much more closely to that of the undistorted human foot, that we consider the boot an immense improvement on the present barbarous, though fashionable, (or perhaps, barbarous, *because* fashionable) style. The appearance of the book is very attractive, and its flexible cover makes it a handy thing for the physician to slip into his pocket, and read as he rides between his visits.



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*Report of the Resident Physician of the New York City Lunatic Asylum, Blackwell's Island, New York, for the Year 1861.*

In this valuable report, Dr. Ranney gives us the statistics of his Institution, not for the past year alone, but for the last fifteen years. The admissions into the Institution—which derives its inmates from the poor of the city, the public charitable institutions, and the emigrants—have been for the year, 149 males, and 239 females, the whole number under treatment having been 1,142. There remained under treatment on the 31st December, 805. With regard to the causes of death, the following interesting statement is made: "Of the deaths, nearly one-half were from consumption and softening of the brain.

Consumption must ever hold a prominent place among the causes of death in a lunatic asylum—any organic disease in the brain diminishing the supply of nervous fluid to the lungs, and thus increasing their susceptibility to disease. Softening of the brain, a disease nearly always terminating fatally, is of comparatively modern date, and evidently increasing in frequency." A reference to the statistical table of deaths for the past fifteen years, shows the former disease to have been the cause of death in nearly one-third of the whole number. The fact that out of upward of a thousand patients, only two have committed suicide during the year, speaks much for the completeness of the police regulations, as well as the calmativè character of the treatment adopted.

The Report dwells upon the necessity for a more extensive accommodation for the Insane, and asserts as a ground, the somewhat startling fact, that "from the records of this department it appears that for the last forty years the number of insane has doubled every ten years," adding that "there is little prospect of diminishing this ratio." We trust, at least, that it will not increase. Otherwise the idea of the cunning lunatic that insanity was merely a matter of the opinion of the majority, he being unfortunately in the minority, may come to have a very unpleasant reality, and we who flatter ourselves that we are sane may suddenly discover that the balance is on the other side.

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*On Medical Provision for Railroads as a Humanitarian Measure, etc.*  
Read before the State Medical Society. By EDMUND ARNOLD,  
M.D., M.R.C.S.E., Delegate from Westchester County.

We prefer leaving off the latter portion of the title of this paper, having reference to the pockets of the companies, as we do not think that physicians, either individually or collectively, and especially the State Medical Society, have anything to do with that matter. The humanitarian is the only motive which they should urge, and this is urged with a good deal of force by the author. In an editorial article in the January number, having reference to the purchase of St. Thomas' Hospital, London, by a railroad company, we jestingly alluded to the comfortable state of feeling that would be engendered in the bosom of a timid traveler if he should have prominently brought before his mind the vision of a hospital with open doors, and a surgeon with amputating-knife in hand, waiting to receive him at the terminus. We beg leave to say that Dr. Arnold's paper has put the

matter before us in a different and more serious as well as more practical light, and that his suggestions appear to us worthy of being carried out, as indeed the bill now before the Legislature renders it probable that they will.

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*Braithwaite's Retrospect of Practical Medicine and Surgery.* Part the Forty-fourth. Uniform American Edition. New York: W. A. Townsend, 39 Walker Street.

This compend continues to maintain its high standard of interest and value. The present part is especially rich in the obstetric department, containing valuable articles from Simpson, Barnes, Hewitt, Murphy, Duncan, Tyler Smith, Barker, and other well known obstetricians.

We observe that American Pharmaceutical preparations are attracting a good deal of attention in England. The *actea racemosa* in rheumatism, and *veratrum viride*, as an arterial sedative, both find places in the volume before us. The *London Lancet*, too, in initiating a series of articles on New Remedies, makes special reference to the advances made by us in this direction, and quotes quite extensively from American periodicals.

Valuable papers on the Employment of Alcohol in Medicine, as well as on its properties as an aliment, will also be found under the head of Miscellaneous Subjects.

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### EDITORIAL AND MISCELLANEOUS.

#### THE SANITARY COMMISSION. PRO BONO PUBLICO.

The Sanitary Commission, notwithstanding the very important services they have rendered to our Army, have been, ever since the initiation of the movement, and we are sorry to say are still, the objects of a most persistent and unwarranted opposition on the part of certain members of the profession.

This unfortunate animosity has found a mouth-piece in a Philadelphia contemporary, which has displayed in its attacks a degree of petty malignity, and a reckless disregard of professional courtesy, entirely unworthy a scientific journal. Side by side with these aspersions, have been articles in the highest degree laudatory of the Surgeon-General, and the conduct of matters by his department, leaving no



room for doubt that the motive of the antagonism was personal friendship for the head of the Army Medical Department, and a dread lest he should be interfered with, or displaced in consequence of any representation of the Commission. Was this dread well founded? Has the course of the Sanitary Commission been such as to lead to the conclusion, that the main object of their organization was, as their enemies would have us believe, "to displace the machinery which for more than two-score years has accommodated its capacity and dimensions fully to the demands of the Army, and of the Government, to make a cozy nest for some of its own adherents?" A brief review of the history of its relations to the Medical Bureau will, we think, be essential to a proper answering of this question.

At the time when the signature of the President gave the Commission its legal existence and authority, the venerable Dr. R. C. Wood was acting Surgeon-General; Surgeon Lawson being prevented from the discharge of the duties of the office by illness. Dr. Wood received with the greatest respect the suggestions of the gentlemen of the Commission, placed every means in his power at their disposal, co-operated with them as far as possible in their endeavors to promote hygienic regulations, and supply deficiencies among our troops so hastily gathered, and so ignorant of the *savoir vivre* of the camp; in short, met them in the same generous spirit of devotion to the common weal, which had prompted them to volunteer their services. The Commission naturally congratulated themselves that they were to work together, in such perfect harmony with the regular department, for they could not but feel that the success of their efforts depended in great measure upon the hearty co-operation of those in authority. This cordial co-working, however, was of short duration. The illness of Surgeon-General Lawson terminated fatally. Wood ceased to represent him in the Bureau, and Finlay succeeded to the dignity and authority of the office. Immediately upon entering it, he gave the Commission to understand that he considered them as intruders and interlopers, and that while, owing to the President's sanction of their operations, he should be obliged to afford them certain facilities, all his personal influence should be used against them. This spirit of obstinate opposition to all the reforms suggested by the Commission, he was enabled to infuse, to a considerable extent, into his inferiors in the service, and in this way he has succeeded in interfering most seriously with the philanthropic labors of the Commission, and delayed the success of their plans. The sequel has showed, however, who was most injured by this dogged antagonism. The individual who, regardless

of the capacity of his cranium for resistance, persists in butting his head against the stone wall of public opinion, enlightened progress and necessary reforms, will invariably go to the ground. Thus repulsed and embarrassed, what would have been the natural course of the Commission had they been actuated by the motives attributed to them? Obviously to publish to the country the damning evidence which they were daily accumulating in their inspection of camps and hospitals, of the inefficiency and inadequacy of the department, as constituted, to meet the fearful emergencies of the hour. Did they adopt this course? On the contrary, they endeavored in every possible way to cover up the defects of the system, making most respectful representations to the Surgeon-General himself of evils which they discovered, and for which the remedies were evident; when these representations were neglected, repeating them over and over again, and if still unnoticed, supplying out of their own limited stores what they felt to be absolutely necessary that the army might not be demoralized and Government disgraced.

Instances came to their notice, day after day, which, had they committed them to the public press, would have roused such a whirlwind of indignation that the President would have been compelled to anticipate his recent action by months. One case in particular we may cite as an example of many. The condition of the Hospital for Eruptive Diseases was found last summer by a member of the Commission to be such as called for immediate interference. Not only were the accommodations inadequate to the numbers received, the ventilation extremely defective, the wards foul and offensive, the nursing insufficient, but, to crown all, small-pox was distributed indiscriminately among the less deadly exantheas. It required no prophet to foretell that this pest-house must soon become a focus of infection, whose fatal influences should radiate to the whole Army of the Potomac. The Commission accordingly made the most urgent appeals to the medical authorities to have a building set apart for the sequestration of this loathsome disease, and ambulances reserved especially for the conveyance of those affected with it. Their remonstrances fell upon deaf ears. The wards grew more and more crowded. The commingling more and more reckless. In due time, soldiers arriving with measles, or scarlatina, recovered, and were suffered to return, unvaccinated, to their respective regiments; and just so sure as their return, so surely came back the indignant remonstrance from the regimental surgeons, "In Heaven's name, hold! you are sending us death!" That the seed thus widely sown bore an abundant crop, the cemeteries of the camps

will testify, and the bills of mortality will corroborate their testimony. Heart-sick at this wanton neglect, the Commission were at length compelled to apply to the Commander-in-Chief, and by his especial order, a small-pox hospital was established, and proper regulations were made with regard to ambulances conveying patients to it. And thus the plague was stayed, but not until Washington City had been repaid with fearful interest for the scourge that it had sent into the field. It is unnecessary to multiply instances wherein the Commission has thus remedied the defects and glossed over the short-comings of the Department. Its enemies themselves admit that the Report of its Secretary pays "a just and merited tribute to the State and National Governments, and especially to the Medical Bureau," and in its actions as well as its reports, it has ever been careful to refrain as far as that Bureau permitted it to do so, from anything which would cast reproach or suspicion upon it.

The report to which reference has been made is a most complete and masterly document, giving not only a view of a vast field of work, but containing carefully arranged statistics, bearing on the health of camps, which cannot fail to be of great practical value. It has been most flatteringly noticed by all the foreign journals of medical, sanitary, and military science. Even the *London Times*, that persistent vilifier of everything *American*, fails to find anything to criticize in its pages, and devotes a column to its laborious details, which it considers without a parallel, save in the wonderful results of German statisticians, who have had years, instead of months, wherein to prepare them. And yet our Philadelphia critic can find nothing to admire in it. The tangible results, to his eye, are narrowed down to "the vaccination of more than twenty thousand men." And in this, we are told it has but "relieved the Medical Bureau, always ready and able to perform its whole duty in protecting the army from this dreadful scourge, of a portion of its labors." If the Medical Bureau is always thus ready and able, why did it allow an entire army of unvaccinated men to sail for Port Royal without a particle of vaccine matter, leaving the deficiency to be supplied by the Inspector of the Sanitary Commission on its arrival?

The admirable little tracts which the Commission, availing itself of the first talent in the profession in all our large cities, has issued for the use of army surgeons, necessarily without the counsel afforded by a library, and which are models of point and brevity, he considers "as paying a very equivocal compliment to their intelligence." For ourselves, if suddenly called to take the field, we should

feel most grateful for any such little handy reminders of the grand principles on which our treatment must be founded, or its more minute details. It may be that the "intelligence" of our editorial brother is of so high an order, that he is placed far above all necessity for any such adjuvants. If so, we congratulate him. The articles in opposition to *Revaccination* and *Prophylaxis by Quinine*, as recommended by the Commission, we had hardly expected to meet in a medical journal. However, we could scarcely have anticipated any very high standard of scientific criticism in a periodical which gives, in one number, an astonishing account of "*Eight Children at a Birth*," with circumstantial details of the wonderful gemelliparous ancestry of the prolific mother, and in the next, a recipe in full for the preparation of an "*Instantaneous Black Hair Dye*," which smacks strongly of the last Quack Almanac. Fortunately for the readers of the journal in question, the intelligent physician who "does" its science endeavors, as far as possible, to counteract the evil effects of its blunders. Just as surely as an error creeps into an editorial, does the vigilant Gibbs insert the antidote in the *Periscope*, or some contributor, either intentionally or accidentally, furnishes the correction. Does the editor insert a long article from a Western journal, the object of which is to prove that "the best of all prophylactics is good health to be maintained by appropriate hygienic measures," (which hygienic measures, as it gives them in detail, are utterly unattainable by an army in the field,) prefacing the extract with some contemptuous remarks as to the folly of "dosing every soldier in the army with quinine?" The *Periscopist* follows up with two columns and a half, strongly urging the subject as an "all-important one," "coming with tidings of joy and words of comfort to those who are subject to the influence of the poison."

Does the editor express his opinion that a single "vaccination is a positive and *unlimited* protection against small-pox," and at the same time expose the weakness of his Latinity by speaking of *exanthemata*?

The Surgeon of the 54th Regiment P. V. is on hand to certify that out of some five hundred men who were revaccinated in his regiment, "the revaccination was perfectly successful in at least three hundred cases."

Does the editor hold up his hands in holy horror, and shed maudlin tears over the "inhumanity" of the iced-bath? The injured Dr. Bauer hastens to the rescue with an indignant remonstrance.

But the most offensive and ungentlemanly of these attacks have been those which charged the Commission with appropriating to their own personal uses moneys given them in sacred trust, for the good of

the soldier. Nor are they less offensive because false. We are confident that no member of the Commission, as such, has drawn a single dollar from its treasury beyond his traveling expenses, when journeying on the business of the Commission; and we happen to know that some of them who have made repeated visits to Washington, have never made a draft upon the Treasurer. To accuse the Commission of salarizing its employees, its Secretary and Inspectors, is simply to accuse them of doing what every charitable association does, and without which, no charitable operations could be carried on.

Who would think of charging the managers of the American Bible Society with "appropriating to themselves a liberal salary from the donations of charity" because it employs a paid Secretary, and paid agents and missionaries? And yet the case is precisely analogous. The men to whom must be intrusted the work of sanitary inspection, are young men who cannot afford to give their services, however much their heart may be in the work, and at the same time, men of education and ability, whose labors will ever command a fair remuneration. It needs no logic to prove that the money which sends an inspector whose vigilance assures to the soldier a well-drained camp, a well-ventilated tent, well-cooked food, and an observance of sanitary precautions on the part of his officers, is just as truly "expended for the direct benefit of the poor soldier" as that which provides him with food and raiment, or hospital accommodations. But that they do not confine themselves to mere inspection is sufficiently proved by the records of every battle-field. From Port Royal and Newbern, and Roanoke, from the Potomac and the Mississippi, we hear the same record of their untiring exertions for the relief of the sick and wounded, and the great acceptableness of the stores with which they have gone provided.

Our critic seems to think he is saying a very severe thing of the Commission in calling it the "almoner of public charity." This is precisely one of the principal objects with which it was organized—that it might systematize and utilize this great movement of the people's heart, longing to do something for the comfort of their brothers in the field. And in this it has been most signally successful. We venture to say, that not an article of clothing has gone through the hands of the Commission that has not been well and wisely bestowed, while it is a well known fact, that box after box which has been sent in a private way, has failed of its destination, and is now stowed away, forgotten, in some Government storehouse. Nor is the other supposition less unfounded or absurd, that prominent medical men in this or other

large cities, whose practice brings them an income double the salary of the Surgeon-General, are aiming to dispossess that functionary that they may slip into his or other more subordinate positions. No one can entertain a higher regard than ourselves for the Medical Staff of the Regular Army of the United States. We have always regarded it with peculiar pride. Whether or not Dr. Finlay was the best man to preside over it, the powers that be have already decided, and it is not for us to question their decision. But under the present immense pressure to which it is subjected, and with the increased demands that must be made upon it for many years to come, it is little to say that it is imperatively necessary that it should be remodeled, on a basis adequate to the emergency; and that remodeling alone can do away with the necessity for the Sanitary Commission.

We have spoken of friendship for Dr. Finlay as the apparent cause of the hostility of this journal to the Sanitary Commission. The first number of its new volume lets us a little more behind the scenes; for it makes the announcement, that "through the official action of Government," (it is difficult to conceive, by the way, how *Government* could take any action that would not be *official*.) "the REPORTER is regularly sent to the various military stations throughout the country." Is this a reward for services rendered, or the stimulus which led to their performance? In either case, if success be the test of desert, the unfortunate result for Dr. Finlay would seem to show that the champion had been considerably overpaid.

— CHANGES IN THE U. S. MEDICAL BUREAU.—Since our last issue, the following important changes have taken place in the Army Medical Department: 1st, Surgeon-General Finlay has been ordered to Boston; 2nd, The Medical Reform Bill has become a law; and 3d, Under its provisions, the PRESIDENT has selected William A. Hammond, M.D., as Surgeon-General of the U. S. Army, with the rank of Brigadier-General.

THE SINEWS.—We regret to be compelled to call the attention of many of our old subscribers to the fact that their subscriptions are still unpaid. If the deficiency is not soon met, we shall be obliged to curtail our issue, and, of course, those will feel the effects of it who have failed to furnish the means for its continuance on its present basis. All remittances should be addressed to the "Office of Publication," No. 12 Clinton Place. Registered letters will be at the risk of the proprietor.